

THE BULLETIN
OF
THE
CITADEL

THE MILITARY COLLEGE
OF SOUTH CAROLINA

1958-1959
CATALOGUE ISSUE







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GENERAL MARK WAYNE CLARK
President

BULLETIN OF
THE CITADEL
THE MILITARY COLLEGE
OF SOUTH CAROLINA

FOUNDED 1842



CATALOGUE ISSUE

1958 — 1959

CHARLESTON, S. C.

"I call, therefore, a complete and generous education that which fits a man to perform justly, skillfully, and magnanimously all the offices, both private and public, of peace and war."—MILTON.

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COLLEGE CALENDAR FOR 1958-1959

1958

SUMMER SESSION

June 16, Monday, 9:00 A.M.	Session begins
July 4, Friday	Holiday
July 25, Friday	1st half session ends
July 28, Monday	2nd half session begins
August 30, Saturday	Session ends

FIRST SEMESTER

September 8, Monday, 9:00 A.M.	New cadets report
September 16, Tuesday, 8:00 A.M.	Old cadets report
September 17, Wednesday, 8:00 A.M.	Classes begin
November 8, Saturday	Parents' Day
November 15, Saturday	Homecoming Day
November 27, Thursday	Thanksgiving Day
December 19, Friday, 6:30 A.M.	Christmas Holidays begin

1959

January 4, Sunday, 6:00 P.M.	Christmas Holidays end
January 22 to January 29	Examinations
January 30, Friday	First semester ends

SECOND SEMESTER

February 2, Monday	Second semester begins
February 22, Sunday	Washington's Birthday
March 14, Saturday	Corps Day
March 24, Tuesday noon	Easter holidays begin
March 31, Tuesday, 6:00 P.M.	Easter holidays end
May 27	Examinations
June 6, Saturday	Commencement

The Citadel is a liberal arts military college; its chief concern is to prepare men for civil life. Because of the military record of Citadel graduates, there has grown up a wrong impression that the institution exists to prepare men for war. The College is justly proud of the war record of its sons and will always expect them to respond in national emergencies, but its chief purpose is to prepare men for civil pursuits by giving them a sound education reinforced by the best features of military training.

Military training teaches the value of system and order in approaching tasks, of physical and mental fitness, and of alertness and self-confidence. It teaches how to command and how to obey, how to organize and coordinate, and how to maintain morale and discipline. Most important of all, it instills the conviction that any sacrifice must be made when principle is involved and that truth, honor, and integrity are the basis of character.

A civic leader, no less than a military commander, must be prepared to meet difficult or hazardous situations courageously and effectively, to make decisions and enforce them, to lead when it is his duty to lead, to follow when it is his duty to follow, and to inspire confidence through his resourcefulness, honesty, and courage. Such qualities The Citadel attempts to develop in its cadets.

The training is not given at the expense of academic education. On the contrary, the aim is to make academic training more effective through development of soldierly virtues. Graduates in many vocations and in many parts of the world attest the value of the rigorous regimen of classroom, barracks, and drill field.

Many desirable characteristics do not grow out of scholarship alone; traditions and codes may more profoundly influence college men than the most scholarly lectures. For this reason, to its academic training, which it assiduously seeks to make vital, The Citadel adds the code of the cadet and gentleman. The visible symbol of this code is the proudly-worn uniform, a constant reminder that alma mater expects of every son the poise and culture of a student, the public spirit and unselfishness of an enlightened citizen, the courage and loyalty of a soldier, and the honor and bearing of a gentleman.

ORGANIZATION

BOARD OF VISITORS

COLONEL J. M. MOORER, <i>Chairman</i>	Walterboro, S. C.
COLONEL DAVID E. MCCUEN, JR. <i>Vice-Chairman</i>	Greenville, S. C. (2635 Augusta Road)
COLONEL W. W. WANNAMAKER, JR.	Orangeburg, S. C.
COLONEL J. M. HOLLIDAY	Gallivants Ferry, S. C.
COLONEL EUGENE C. FIGG	Charleston, S. C. (24 Savage St.)
COLONEL THOMAS C. VANDIVER	Columbia, S. C. (P.O. Box 300)
COLONEL CLARENCE C. BROWN, JR.	Spartanburg, S. C. (P.O. Box 649)
COLONEL HORACE L. TILGHMAN	Marion, S. C. (104 Oakenwald Drive)
COLONEL W. LEROY HARRELSON	Myrtle Beach, S. C. (P.O. Box 1276)

Ex-Officio

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MAJOR GENERAL JAMES C. DOZIER, <i>Adjutant General</i>	Columbia, S. C.
HONORABLE JESSE T. ANDERSON, <i>State Superintendent of Education</i>	Columbia, S. C.
HONORABLE J. D. PARLER, <i>Chairman Military Committee, State Senate</i>	St. George, S. C.
HONORABLE FRANK EPPES, <i>Chairman Military Committee, House of Representatives</i>	Greenville, S. C. (882 N. Franklin Road)

COLONEL S. M. SANDERS, U.S.A.R., *Secretary*Charleston, S. C.
(Room 409, The Center)

ADMINISTRATIVE STAFF

GENERAL MARK WAYNE CLARK, U.S.A., Ret.	<i>President</i>
MAJ. GEN. JOSEPH P. SULLIVAN, U.S.A., Ret.	<i>Administrative Dean</i>
COLONEL RALPH MILLEDGE BYRD	<i>Academic Dean</i>
COLONEL D. S. MCALISTER	<i>Director of Cadet Affairs</i>
COLONEL C. J. HOY, U.S.A., Ret.	<i>Adjutant</i>
COLONEL ROBERT BEIRNE SPRAGINS, U.S.A.	<i>Commandant</i>
COLONEL J. D. GORHAM, JR., USAF	<i>Deputy Commandant</i>
COLONEL PHILIP R. GARGES, U.S.A., Ret.	<i>Staff Engineer</i>
COLONEL JAMES W. DUCKETT, USAR	<i>Registrar</i>
LIEUTENANT COLONEL J. F. BOSCH, JR.	<i>Quartermaster</i>
LIEUTENANT COLONEL HUGH CATHCART, M.D.	<i>Surgeon</i>
MAJOR EDWARD L. TEAGUE, JR.	<i>Director of Athletics</i>
CAPTAIN BRYAN COLLIER	<i>Public Relations Officer</i>
CAPTAIN JAMES M. HILLIARD	<i>Librarian</i>

Administrative Staff Assistants

COLONEL J. F. WILLIAMS, U.S.A., Ret.	<i>Assistant Commandant</i>
COMMANDER ROBERT B. FOLSOM, USNR	<i>Assistant Registrar</i>
MAJOR F. A. CLARK	<i>Assistant Quartermaster</i>
MAJOR HUGO A. PEARCE, JR., USAR	<i>Alumni Secretary</i>
MAJOR W. L. COOPER, U.S.A., Ret.	<i>Assistant Commandant</i>
CAPTAIN L. E. COSTA	<i>Director of the Brigadier Club</i>
CAPTAIN LEON FREDA, U.S.M.C., Ret.	<i>Band Director</i>
LIEUTENANT HERBERT WILCOX	<i>Assistant Quartermaster</i>
LIEUTENANT H. WILLIAM O'SHEA, JR.	<i>Assistant Librarian</i>
MR. J. M. LELAND	<i>Y.M.C.A. Secretary</i>
MISS SUSAN BURK	<i>Administrative Assistant</i>
MRS. J. H. WILLIAMS	<i>Administrative Assistant</i>
MRS. M. J. REYNOLDS	<i>Administrative Assistant</i>
MISS B. F. MOLONY, R. N.	<i>Head Nurse</i>
MRS. A. E. DUFOUR	<i>Hostess</i>
MR. VERNON W. WESTON	<i>Director of Music</i>
MR. DUNCAN WEEKS	<i>Mess Steward</i>
FIRST LIEUTENANT RONALD S. SPENCER, JR.	<i>Asst. Director of Athletics</i>
MR. WILLIAM B. STEWART	<i>Sports Publicity Director</i>
CAPTAIN D. C. BUNCH	<i>Tennis Coach</i>
CAPTAIN G. E. WOOD, U.S.A.	<i>Rifle Coach</i>
FIRST LIEUTENANT D. C. H. WITT, JR.	<i>Assistant Coach</i>
FIRST LIEUTENANT NORMAN SLOAN	<i>Basketball Coach</i>
FIRST LIEUTENANT P. G. RATTERREE	<i>Assistant Coach</i>
FIRST LIEUTENANT M. M. ERWIN	<i>Baseball Coach</i>
FIRST LIEUTENANT JOHN GUITON	<i>Wrestling Coach</i>
MR. RONALD REILLY	<i>Swimming Coach</i>
FIRST LIEUTENANT WILLIAM MANER BOSTWICK	<i>Trainer</i>

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SECOND LIEUTENANT NORMAN MACLEOD

B.A., M.A., University of North Carolina
Assistant Professor of English

SECOND LIEUTENANT JOHN BOWERS BLANCHARD

B.A., McGill University; M.A., Middlebury College
Assistant Professor of Modern Languages

SECOND LIEUTENANT HAROLD BRICE ALEXANDER

B.A., The Citadel; M.A., Duke University
Assistant Professor of English

SECOND LIEUTENANT WOODROW LEE HOLBEIN

B.A., Baldwin-Wallace College; M.A., Western Reserve University
Assistant Professor of English

SECOND LIEUTENANT FRANK LYNN FEIGL

B.S., Indiana University; M. A., Ball State Teachers College
Assistant Professor of Physical Education

SECOND LIEUTENANT PAUL JAMES KINGSTON

B.S. Hillyer College; M.A., University of Connecticut
Assistant Professor of Political Science

SECOND LIEUTENANT FRANK LANDER GRUBB

A.B., Erskine College; M.Ed., University of South Carolina
Instructor in Physics

SECOND LIEUTENANT EPHRIAM MIKELL SEABROOK, JR.
B.S. in C.E., Clemson College; P.E. (South Carolina)
Instructor in Civil Engineering

SECOND LIEUTENANT LLOYD SAMUEL MOORE, JR.
B.S. in C.E., The Citadel
Instructor in Civil Engineering

SECOND LIEUTENANT EUGENE DEWEES TRAGANZA
B.A., Indiana University
Instructor in Chemistry

SECOND LIEUTENANT JOHN MORRIS
B.S., Princeton University; M.S., Georgia Institute of Technology
Instructor in Physics

SECOND LIEUTENANT EARLE CARLTON SMITH
B.S., Berry College
Instructor in Chemistry

SECOND LIEUTENANT NORMAN MACGREGOR RUGHEIMER
B.S., College of Charleston
Instructor in Physics

SECOND LIEUTENANT HAROLD IGNATIUS DONNELLY
B.S., The Citadel
Instructor in Civil Engineering

SECOND LIEUTENANT HUBERT ALEXANDER OSTERKAMP
B.S., The Citadel
Instructor in Civil Engineering

MAURICE JOHN LENHARDT
A.B., Wabash College
Instructor in Fine Arts

VERNON WYLIE WESTON
A.B., Furman University
Instructor in Fine Arts

DR. OSCAR S. REEDER
B.S., The Citadel; M.D., Medical College of South Carolina
Instructor in Psychology

ASSOCIATION OF CITADEL MEN

OFFICERS

President: Charles M. Drummond, Jr., '40, 426 South Fairview Ext., Spartanburg, S. C.

Vice-Pres: George H. Orvin, '43, 18 Meeting Street, Charleston, S. C.

Sec-Treas: Hugo A. Pearce, Jr., '43, The Citadel, Charleston, S. C.

ALUMNI MEMBERS, ATHLETIC ADVISORY COMMITTEE

Charles L. Terry, Jr., '43, 1680 Woodlake Dr., Columbia, S. C. - Term expires May 31, 1958.

Henry Deas, '38, P. O. Box 775, Charleston, S. C. - Term expires May 31, 1959.

William Knox Holt, '39, P. O. Box 120, Spartanburg, S. C. - Term expires May 31, 1960.

DIRECTORS

District No. 1 (Counties of Beaufort, Berkeley, Charleston, Colleton, Dorchester) - Robert A. Daniel, '50, Coca-Cola Bottling Co., Charleston, S. C.

District No. 2 (Counties of Allendale, Bamberg, Barnwell, Calhoun, Hampton, Jasper, Orangeburg) - Rodney S. Swinson, '40, 324 N. Carlisle, Bamberg, S. C.

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District No. 6 (Counties of Aiken, Edgefield, Greenwood, McCormick, Saluda) - Herman E. Blake, Jr., '42, 603 Hillcrest Rd., Aiken, S. C.

District No. 7 (Counties of Abbeville, Anderson, Oconee) - David S. Vandiver, Jr., '31, 701 E. River Street, Anderson, S. C.

District No. 8 (Counties of Laurens, Greenville, Pickens) - Julius F. Haley, '39, 422 Byrd Blvd., Greenville, S. C.

District No. 9 (Counties of Cherokee, Spartanburg, Union, York) - John P. Hughes, '42, 125 Canterbury Road, Spartanburg, S. C.

District No. 10 (Counties of Dillon, Georgetown, Horry, Marion) - Dr. L. Wade Temple, '24, Lake View, S. C.

DIRECTORS (Cont'd.)

District No. 11 (Western North Carolina) - Dr. William O. Johnston, '32, 1520 E. 4th Street, Charlotte, N. C.

District No. 12 (Middle North Carolina) - Frank R. Poole, Jr., '42, Box 1492, Greenboro, N. C.

District No. 13 (Eastern North Carolina) - Colonel Charles G. Cooper, '38, P. O. Box 791, Raleigh, N. C.

District No. 14 (State of Georgia) - Arthur C. Baxter, '47, 4277 Rickenbacker Way, N. E., Atlanta, Ga.

District No. 15 (State of Florida) - David S. Herbertson, '38, 1720 Mayfair Road, Jacksonville 7, Fla.

District No. 16 (Armed Forces) - Colonel John D. Gorham, Jr., '40 The Citadel, Charleston, S. C.

District No. 17 (States of Maryland, Virginia, W. Virginia) - Jefferson A. Stokes, Jr., '31, Route 8, Box 619, Richmond 25, Va.

District No. 18 (States of Alabama, Tennessee, Mississippi) - R. Hugh Daniel, '29, 3805 Forest Glen, Birmingham, Ala.

District No. 19 (States of Illinois, Indiana, Kentucky, Ohio, Michigan, Wisconsin) - Joseph P. Roth, '43, 417 Winnemac, Park Forest, Ill.

District No. 20 (District of Columbia) - Carl J. Matthews, '35, Persimmon Tree Rd., R. D. 3, Washington 14, D. C.

District No. 21 (States of Delaware, New Jersey, New York, New England, Pennsylvania) - Jim Morton, '38, Journal & American, 220 South Street, New York, N. Y.

District No. 22 (States West of the Mississippi except Pacific Coast States) - James H. Lake, '33, 1208 Whitney Bldg., New Orleans, La.

District No. 23 (States of Washington, Oregon and California) - Harcourt G. Bull, '29, 3565 Shadow Grove Road, Pasadena, Calif.

CLUB PRESIDENTS

Anderson Citadel Club — H. G. Anderson, Jr., '54, 708 E. River St., Anderson, S. C.

Augusta-Aiken Citadel Club — Frank H. Cormany, '48, 195 Dogwood Road, Aiken, S. C.

Birmingham & N. Alabama Citadel Club — Raymond Astumian, '42, Comptroller, Hq. USA Mil. Dist. Ala., Calder Building, Birmingham, Ala.

Cape Fear Valley Citadel Club — W. J. McComb, '31, 113 Woodrow St., Fayetteville, N. C.

Charleston Citadel Club — Henry L. Legare, '41, 610 Park Avenue, N. Charleston, S. C.

Charlotte Citadel Club — J. Lawton Patterson, '50, 1045 Providence Road, Charlotte, N. C.

ASSOCIATION OF CITADEL MEN

CLUB PRESIDENTS (Cont'd.)

Chicago Citadel Club — William D. Wysockey, '51, 1803 Chancellor St., Evanston, Ill.

Combined Citadel Club, Miami Branch — Orville L. Rogers, '38, 650 Flagami Blvd., Miami, Fla.

Dillon-Marion Citadel Club — A. B. Jordan, Jr., '26, 300 South 14th Avenue, Dillon, S. C.

Florida West Coast Citadel Club — David Vann, '40, 308 Tampa St., Acacia Mutual Life Ins. Co., Tampa, Fla.

Fort Benning-Columbus, Ga. Citadel Club — Lt-Col. W. Rhett Taber, '36, Staff Dept., TIS, Fort Benning, Ga.

Fort Sill, Okla. Citadel Club — Lt-Col. T. Nugent Courvoisie, '52, 421 E. Hamilton St., Fort Sill, Okla.

Georgia Association of Citadel Men — Colin S. Monteith, III, 49, 3403 N. Druid Hills, Atlanta, Ga.

Georgetown-Horry County Citadel Club — Louis H. Siau, '43, 520 Highmarket St., Georgetown, S. C.

Greater Cleveland & Ohio Citadel Club — Russell W. McDonald, 46, 2593 Highland Rd., S. Euclid 21, Ohio.

Greenville Citadel Club — David G. Traxler, '31, 541 S. Main St., Greenville, S. C.

Greenwood Citadel Club — Thomas R. Pinson, '31, 227 East Avenue, Greenwood, S. C.

Jacksonville Citadel Club — Daniel E. Ridgell, '39, 4928 Apache Avenue, Jacksonville, Fla.

Metropoliton Washington Citadel Club — Lt-Col. Louis H. Ressijac, '39, 6300 N. 31st St., Arlington, Va.

New Orleans Citadel Club — James H. Worrill, '41, 6120 Chestnut St., New Orleans 18, La.

New York Citadel Club — Jim Morton, '38, c/o New York Journal-American, 220 South St., New York 15, New York.

Pee Dee Citadel Club — Phil Southerland, '49, 1712 W. Palmetto St., Florence, S. C.

Piedmont-Carolina Citadel Club — Duncan B. Black, Jr., '46, 1611 West End Place, Greensboro, N. C.

Richland County Citadel Club — Hamilton Lott, '39, P. O. Box 5185, Columbia, S. C.

Savannah Citadel Club — Maurice Goslee, '37, 419 E. Victory Dr., Savannah, Ga.

Spartanburg Citadel Club — William K. Holt, '39, Box 120, Spartanburg, S. C.

Sumter Citadel Club — Dr. Charles R. Propst, '48, Box 1563, Sumter, S. C.

The Old Location and the New

The history of The Citadel may be divided into two parts. In the first, extending from December 20, 1842, when the legislature of South Carolina passed the act providing for the establishment of the school, to September 1922, the institution was located on a narrow strip of land along the north side of Marion Square. This is an open space of about ten acres in what has long been the middle of the historic city of Charleston, South Carolina. In the second, extending from 1922 to the present, The Citadel has been situated some three miles northwest of its former location on a campus of about eighty acres between Hampton Park and the Ashley River.

How The Citadel Got Its Name

The school derived its name from the building in which it was first housed. Erected with state funds as an arsenal some years after the frustration of the Denmark Vesey slave uprising of 1822, this sturdy old fortress, which still dominates Marion Square, was called The Citadel. It was garrisoned first by Federal, then by state troops until these last were replaced in March 1843 by the twenty students who made up the first Corps of Cadets. Living under regulations much like those of West Point, these cadets served as a guard for the state's arms at the same time as they pursued a course of study designed to make them useful citizens in time of peace as well as war.

With its sister school The Arsenal, established at the same time in Columbia, the state capital, The Citadel was a part of what came to be known as the South Carolina Military Academy. From 1845 to 1865 cadets of the Academy spent their freshman year at The Arsenal and their three upper-class years at The Citadel.

The first period of the school's existence on Marion Square lasted until 1865. During this period an east and a west wing were added to the original building, high standards of intellectual and military discipline were maintained, and enrollment was built up to 145 cadets on January 1, 1864.

The Citadel in the Civil War

The founders—men like Governors Richardson and Hammond and General D. F. Jamison, who was later to preside over the convention at which the South Carolina Ordinance of Secession was signed—had foreseen that the state might soon need men with military training. When the trouble long brewing between the North and the South erupted in war, the record of Citadel alumni and cadets vindicated the foresight of the founders. Of the 224 alumni living at the time of the Civil War, 193 wore the Confederate gray, all but twenty as commissioned officers and four as generals. Thirty-nine were killed in

battle, and four died in the service. On January 9, 1861—before the firing on Fort Sumter—cadets of the Corps manned the guns which drove back from the entrance of Charleston harbor the *Star of the West*, a steamer sent by the Federal government to the relief of the fort. Made a part of the military organization of the state by a legislative act of January 28, 1861, the Corps of Cadets helped emplace and guard artillery on James Island, did guard duty in Charleston, and on December 6 and 7, 1864, near the war's end, suffered several casualties in an engagement with Union troops at Tulifinny Creek near Yemassee Station, while helping to defend the Charleston and Savannah Railroad.

Very shortly afterwards came some years of eclipse for The Citadel. From February 18, 1865, when a Union force marched into Charleston, until April 1879, the bulidings on Marion Square were occupied by Federal troops, and the operation of the school was necessarily suspended.

The Re-opening after the Civil War

The second period of The Citadel's existence on Marion Square began on October 2, 1882, with an enrollment of 185 cadets. Though the Corps no longer served as an arsenal guard, the military system of the ante-bellum years was in all other respects continued. The re-opening of the school was the culmination of efforts begun by alumni in April 1877. At their request Governor Hampton had appointed a Board of Visitors in 1878, and in January 1882 the state legislature has passed a bill providing for the re-establishment of the school and appropriating money for the repair of its buildings and for its maintenance. The Arsenal in Columbia, its buildings having been burned during the Civil War, was never reopened.

In the forty years that passed before The Citadel moved to its present site, the physical plant was still further enlarged, part of the cost being defrayed with money collected in 1888 from the Federal government for rent and for damages sustained during the years the buildings were occupied by Federal troops. The enrollment was also increased, and the curriculum was made somewhat more flexible. In 1910 the name of the school was changed to The Citadel: The Military College of South Carolina. This change was made to keep people from regarding the institution as a preparatory school, something it was not and had never been.

In 1918, during the administration of Mayor T. T. Hyde, the city council of Charleston offered the state the present site of the school, a tract of about eighty acres of high land and one hundred acres of salt marsh. Early in 1919 the state legislature accepted the offer and appropriated money for the erection of the first buildings.

The Greater Citadel

In the fall of 1922 the school began operating at its new location. There were then only a few buildings on the campus. In the thirty-four years that have since elapsed many have been added to those originally constructed. (See Grounds and Buildings, page 27, for a complete description of the present campus.)

Changes in the curriculum and in the nature of the student body have paralleled those in the physical plant. In the first place, the elective system has been considerably expanded. In the last year at the old location it was possible for a student to major in any one of three fields during his junior and senior years: chemistry, civil engineering, and physics. In his senior year the student was then able to major in one of two others: biology-chemistry and English. Now students may choose among the following, all of which offer major work for at least the junior and senior years: business administration, chemistry, civil engineering, electrical engineering, English, history, mathematics, modern languages, physical education, physics, and political science. In addition, pre-medical and pre-dental courses are now available as are courses in Greek, Latin, education, psychology, sociology, and appreciation of art and music.

Changes in the Student Body

In the nature of the student body there have been four significant changes. The first is that it has grown much larger. In 1921-1922 there were fewer than three hundred cadets in the Corps and only fifty-four were graduated; in 1947-1948, when the student body was the largest the school ever had, there were 2,271 and 203 graduated. The second change is that, with the passing of Public Law No. 346, popularly known as the G.I. Bill of Rights, nearly three thousand veterans of the Second World War, most of whom have been civilian students, have attended the college. Since the end of the fighting in Korea, nearly 200 veterans of this war have also been enrolled. The third is that women have been admitted as students, although only to summer session, since June 20, 1950, and to night school, in the same year. The fourth change is that the majority of the students now come from outside the state. In 1921-1922 ninety percent were South Carolinians; in October 1953 forty-four percent were from South Carolina, although the number of South Carolina students was larger than the whole Corps used to be at the old location.

The growth of the Corps is further reflected in the fact that, while there were 315 Citadel graduates and ex-cadets in the armed forces in World War I, there were about six thousand alumni and ex-cadets on active service in World War II; of these, 280 died for their country. Some fifteen hundred were on active duty during the Korean conflict,

450 of whom were in combat and twenty-six of whom gave their lives. Virtually all graduates on active duty have been commissioned officers.

Memorials to the Makers

Persons prominent in The Citadel's history are memorialized in campus structures. For example, the mess hall is named after Colonel Asbury Coward, superintendent from 1890 to 1908; the largest barracks, after Colonel James Padgett, member of the Board of Visitors for many years, and J. P. Thomas, its longtime chairman; the stadium, after General Johnson Hagood, chairman of the Board at the time the school was re-established after the Civil War; another barracks, after Mr. Andrew B. Murray, philanthropist whose generosity made possible the construction of that building and several others; LeTellier Hall, after Colonel L. S. LeTellier, for many years head of the Department of Civil Engineering and later Acting President of the college; the largest academic building, after Colonel O. J. Bond, president from 1908 to 1931; and the chapel, after General Charles P. Summerall, former Chief of Staff of the United States Army, who succeeded to the presidency in 1931, and who, after leading The Citadel through its period of greatest growth and making the college nationally known, retired as president emeritus in June 1953.

Good Signs for the Future

Since that date the most significant events in the history of The Citadel have been three of the most generous gifts ever made to the college and the inauguration of another distinguished soldier to succeed General Summerall as President.

The first gift, public announcement of which was made on August 31, 1953, was the bequest by Mr. Joseph D. Aiken, of Charleston, South Carolina, of \$750,000. The other two gifts, both made by United States Senator Charles E. Daniel, of Greenville, South Carolina, and his brother, Mr. R. Hugh Daniel, of Birmingham, Alabama, were the Thomas Dry Howie Memorial Carillon and the sum of \$50,000 for scholarships. The scholarship gift was announced on October 9, 1954. On December 5, 1954, was held the ceremony dedicating the Carillon to the memory of Major Howie, of the class of 1929, who died heroically in the fighting at St. Lo, France, on July 17, 1944. (See Grounds and Buildings, page 27, for description of the Carillon.)

General Mark Wayne Clark, who commanded the United Nations forces in Korea, was inaugurated as President of The Citadel on March 19, 1954.

Location

The Citadel is located on an eighty-five acre campus in the north-western part of the City of Charleston. The view to the west and south across the Ashley River, which skirts the campus, is typical of the Carolina low country scenery. From the east, the campus is entered through Hampton Park, a show place of flowers, tree, terraces, and sunken gardens. From the north and south, the entrances are through residential areas of the city.

Buildings

The buildings, both in design and location, follow the carefully prepared plan made by a firm of distinguished architects for the new campus. Architecturally, the buildings follow the Spanish-Moorish style of the original campus in the heart of the city. All structures, such as barracks, academic and administrative buildings, chapel, armory, and student activities building, border the large parade ground, which forms the center of the campus.

Bond Hall

Bond Hall, the largest building on the campus, contains in the center part the administrative offices of the college, the offices of the Association of Citadel Men, and the main library. In the large wings are academic departments, laboratories, and classrooms.

Arts Building

One of the most recent additions to the campus is the Arts Building, where the arts departments and classrooms are located.

LeTellier Hall

LeTellier Hall contains the Department of Civil Engineering, with its library, classrooms, and laboratories.

The Armory

The Armory with its annexes is used for indoor drills, athletic contests, dances, and other activities and functions at which large crowds are assembled. The main room has a floor surface of three thousand square feet, supported independently from the rest of the building, and a ceiling clearance of sixty-five feet. The steel galleries of this room will seat approximately two thousand four hundred spectators.

An annex at the rear of the armory contains the swimming pool, with pressure filters, sterilizing and heating apparatus to assure cleanliness and to provide year-round use.

The Chapel and Carillon

The General Charles Pelot Summerall Chapel, on the east side of the campus, faces the row of barracks which forms the western boundary of the parade ground. The cathedral-like proportions of the Chapel

with its fine pipe organ and splendid memorial windows of stained glass create an atmosphere of religious piety befitting its purpose.

To the north of the Chapel is the Major Tom Howie Carillon, a recent gift of two Citadel alumni, Senator Charles E. Daniel and his brother Mr. R. Hugh Daniel, in memory of the famous "Major of St. Lo," a classmate of the donors.

Barracks

The four dormitories, or barracks, of brick and concrete construction, are rectangular with paved interior courts enclosed by galleries. Each room accommodates two cadets and is equipped with hot and cold water.

Coward Hall

Centrally located behind the barracks is the cadet dining hall, with a seating capacity of two thousand. Constructed of concrete and tile, this building is fully equipped with the modern facilities for storing, preparing, and serving food in the most approved manner. Dining-room floors are terrazzo, kitchen and other floors of ceramic tile, and all wainscots of glazed brick, so that cleanliness and sanitation are easily maintained.

The Mary Bennett Murray Hospital

The college infirmary conforms with the most modern standards of equipment and personnel. The college surgeon is aided by a head nurse and her assistant.

Alumni Hall

Minor sports and other recreational and religious activities are held in this building.

Mark Clark Hall

The new million dollar student activities building, dedicated in May 1957, has on the first floor a large central lobby, on one side of which is a well appointed reception room and on the other side and rear, a post office, canteen, barber shop, billiard room, and bowling room of six alleys. On the second floor an auditorium with a seating capacity of one thousand can also be used for dances and other large gatherings. The cadet store, television room, game rooms, a large club room with kitchen facilities, and the offices of the director of cadet affairs are also located on the second floor. On the third floor are a court room for the honor committee, three conference rooms, a dark room for camera enthusiasts, and editorial rooms for campus publications. Apartments for distinguished guests of The Citadel are on this floor.

Faculty and Staff Residences

The President's House and the quarters of the faculty and staff are located on the southern and northern perimeter of the campus.

Utilities

A modern steam plant, laundry, machine shop, carpenter shop, tailor shop, print shop, and the like are inconspicuously grouped in the northwest corner of the campus.

Athletics

On the extreme north end of the campus is a large cadet athletic field, which provides space for a football field and a quarter-mile running track, with a two hundred and twenty yard straightaway. There are six new tennis courts in addition to the usual courts for intramural sports.

Boating Facilities

Located on the northeast bank of the Ashley River, The Citadel has taken advantage of the splendid opportunities offered by Charleston Harbor and the local rivers for an almost year-round program of boating activities and water sports. The Citadel Yacht Basin has piers, slips, and a floating dock for mooring boats, and power equipment for lowering and raising small craft into and out of the basin. A marine railway, hoist, boat shed, locker and tool room provide ample facilities for the care and maintenance of boats owned by cadets and those provided by the college, which include a forty-five-foot power cruiser, a fleet of Lightning Class sailboats, outboards, and other types of craft. All boating activities are under the auspices of the Yacht Club and are supervised by an experienced director.

GENERAL INFORMATION**Educational Standing**

The Citadel is a fully accredited senior college. It is a member of the Southern Association of Colleges and Secondary Schools and is on the approved list of the Association of American Universities.

The Civil Engineering Department is accredited by the Engineers' Council for Professional Development. The Department of Chemistry is accredited by the American Chemical Society.

System of Management

The Citadel is a military college. Leadership, initiative, and character are developed by placing upon cadets the great responsibilities of controlling all units in the military organization.

All cadets live in barracks. From reveille to taps, every hour of the cadet's time is accounted for. The regular habits of study and living thus formed, the attention to duty, obedience to authority, and love for order inculcated are considered among the most valuable features of the military education. While some the graduates enter the military profession, hundreds in all walks of civil life attest to the high value of the training received at the institution.

The daily routine is regulated by the *Cadet Regulations*, generally known as the "Blue Book."

Reserve Officers' Training Corps

The Citadel is justly proud of the record of its ROTC. For more than seventeen years it has had the highest rating by the Department of Defense (prior to 1947, the Department of War).

The courses of study in ROTC are those prescribed by the Department of Defense.

New students have a choice of Army or Air Force ROTC. However, the Air Force ROTC program is primarily concerned with training potential pilots and aerial observers, both of which require more rigid physical standards. AFROTC seniors who are qualified and who elect to receive pilot training after graduation are required to fly in the light aircraft pilot training program at The Citadel, and upon graduation will serve for a minimum of five years active duty. Selected qualified Army ROTC seniors may participate in light aircraft pilot training program also, and will, upon graduation, receive a three-year active duty tour in the Army Aviation Program. Further counselling is given new cadets in this subject before they make their final ROTC choice.

U. S. Service Academies

Since The Citadel is not a preparatory school, it has no courses specifically designed to prepare students to enter the national military, naval, and air academies at West Point, Annapolis, and Colorado Springs. The regulations for admission to these institutions provide for the acceptance of work done in certain accredited colleges, of which The Citadel is one, in place of the usual mental examination. Many Citadel cadets have entered both West Point and Annapolis by certificate under these regulations.

Physical Examination

A thorough physical examination is required of all applicants for admission. Forms for reporting the results of the examinations are supplied by the Office of the Registrar and when completed should be mailed to the Registrar.

Furloughs

Suspension of work for ten days, including Christmas Day and New

Year's Day, is required by law. Normally furloughs are granted at Christmas and Easter.

It is not the policy of The Citadel to grant discharges between the completion of examinations and the Commencement exercises or the beginning of a furlough. Cadets may withdraw at such times only by order of the Chairman of the Board of Visitors or the President.

Special and Emergency Leaves

By applying for permission for their sons' entry to The Citadel, parents voluntarily relinquish control over them to the authorities of the college, and it is expected that they will not ask for leaves for their sons except in emergencies. In every case the reason for the leave should be stated and the decision left to The Citadel authorities whether the circumstances warrant the approval of the application. This must be done before leaves will be approved.

The paragraphs which follow are extracted from regulations for the Corps of Cadets of The Citadel.

26.05. SPECIAL LEAVE: a. Special leave may be granted upon the request of the parent or guardian in the event of the marriage of a member of the cadet's immediate family, or golden wedding anniversary in the cadet's family. The immediate family includes parents, grandparents, brothers, sisters, and the permanent resident members of the family.

b. Cadets may be granted special leave for such unusual business affairs as cannot be arranged by correspondence, but require the presence of the cadet in person, in which cases applications from parents or guardians stating the circumstances are required. In all cases the final decision must rest with the authorities of the college.

26.06. EMERGENCY LEAVE: An emergency leave of five (5) days subject to extension, if necessary, will be granted to a cadet upon the receipt by the Commandant of Cadets or the Officer in Charge of a letter or telegram from parent or guardian containing news of the death or critical illness of a member of the cadet's immediate family. If any other emergency arises in a cadet's home requiring the cadet's presence, the facts should be set forth clearly by the parent or guardian in a written communication making request for leave. Decision as to whether or not leave will be granted must be left to the authorities of the college. In cases of emergency the cadet need not make application for leave. A special order for emergency leave will be issued upon the request of the parent or guardian only and the cadet will be released to take the first available transportation to his home.

42.08. MEDICAL SERVICE. Except in an emergency occurring on leave and requiring immediate medical attention, a cadet will not arrange

for or receive professional treatment from doctors or specialists without permission from the Surgeon. Applications for any special leaves required for such treatment will be submitted to the Commandant and referred to the Surgeon.

42.09. **SPECIAL MEDICAL AND DENTAL SERVICES.** Dental work, special examination of eyes, etc., should be looked after during the summer or the Christmas furlough. Leaves should not be requested for this purpose. In cases of emergency there are competent specialists and ample facilities in Charleston for taking care of any needs of cadets. In matters of health, the regular Surgeon of the college will advise the proper course to be taken. In case the services of a local dentist, oculist or other specialist are deemed necessary, the request therefor will be submitted to the Surgeon, who, if he approves the request, will make all necessary appointments for the cadets.

Military training is continuous from day to day, and the military grade awarded a cadet is a combination of his practical and theoretical work. Since there is no way for a cadet to make up practical work which he has missed, it is necessary to make deductions from his military grade for any days of training missed because of leaves of absence.

Week End Leave

Week end leaves are authorized as follows:

<i>Class</i>	<i>Number each school year</i>
Senior	6
Junior	4
Sophomore	3
Freshman	2

In all cases written authorization from a parent or guardian for a cadet to avail himself of the privilege must be on file in the Office of the Commandant.

Withdrawal

If a cadet finds it necessary to withdraw from The Citadel during the college year or does not wish to return the following fall, a request for an honorable discharge must be sent by the parent or guardian in writing directly to the Registrar.

The Fourth Class System

The purpose of the freshman training or fourth class system at The Citadel is to provide a foundation upon which a fourth classman may develop those qualities essential to a good leader. It is predicated upon the principle that no one is able to lead who has not learned to follow.

Success in the society in which we live demands qualities such as prompt and willing obedience to authority, loyalty, self control, accuracy, reliability, courtesy, and confidence. The system consists of a collection of traditional customs which function to develop these qualities, to

maintain discipline in the new class, and to continue the best of the customs in the Corps of Cadets.

Hazing

The practice of hazing is becoming less and less common in our colleges. It is a practice which should be totally abolished because, if countenanced at all, it almost invariably is carried to excess by a few irresponsible students.

At The Citadel, where all the cadets live together in barracks, the presence of individuals who are obsessed with the idea that beatings and indignities are part of a student's education cannot be tolerated; and no student is wanted in the Corps who does not subscribe voluntarily to the regulations which absolutely bar hazing.

The regulations concerning hazing are contained in the following resolutions of the Board of Visitors:

Whereas, The Statues of the State makes it unlawful for any student to engage in hazing (XXVIII, Statutes at Large, page 619), and

Whereas, This Act requires the governing board of all colleges supported in whole or in part by the State to formulate and issue such regulations as may be necessary to enforce this law.

Therefore, be it resolved, That the Board of Visitors of The Citadel, in compliance with the law cited, hereby adopts the following regulations:

1. Every cadet will be required to subscribe to the following promise:

I, (Name of cadet), hereby promise that I will not engage in hazing in any form during my connection with The Citadel.

(Signature of Cadet)

2. In any apparent case of hazing, where the facts do not come directly under the observation of the authorities, the Commandant of Cadets will require each cadet in the corps to make a statement whether he was involved in the case, and if so, the facts relating to his connection therewith. In every case where a cadet is guilty of hazing, he shall immediately withdraw from The Citadel, and the facts in the case together with the statement of the cadet will be forwarded to the Board of Visitors.

3. Acceptance of these regulations by the parents or guardian of each cadet and also by the cadet himself will be required before such cadet will be admitted to the college.

4. Hazing is defined to be striking, laying hands upon, treating with violence, or offering bodily harm to a cadet who has been connected with the college for less than one year, or other treatment of a harass-

ing, tyrannical, abusive, insulting, or humiliating nature, or that may endanger the physical well-being of such cadets.

Requiring a fourth classman to perform any personal service whatever for a member of the higher classes constitutes hazing.

Customs and Courtesies

"Customs and Courtesies, a 37 page booklet published at The Citadel, is designed to provide cadets with a compact manual of good deportment. This manual is used as the text book in a course in deportment given under the supervision of the Commandant of Cadets."

After explaining clearly the value of a knowledge of the correct way of conducting oneself in social contacts, the booklet presents detailed information on such matters as personal appearance and dress, correct speech, table manners, introductions, calling cards, calling, social correspondence, overnight visits, and punctuality.

Religious Influences

The Citadel is non-sectarian, but its high objectives cannot be achieved unless its educational program is founded on a solid religious life. Divorced from the spiritual aspirations of the individual and of the group, education is likely to destroy greater values than it creates. The basic purpose of education is to integrate its curricula with character-building activities and a normal religious life to the end that young people may be not only more efficient but better motivated by a sense of duty and obligation. Thus, in an atmosphere of tolerance and mutual respect, every cadet is encouraged to maintain his ties with the religious group to which he belongs, and the college attempts to provide the means by which such association may be made most fruitful.

It is significant that the college in planning its building program thought of cadet chapel which in size, dignity, and beauty would be a fitting reminder to all cadets that education must be founded upon spiritual strength. This building, always accessible, imposing and churchly, is dedicated to no denomination or creed, but is a shrine of religion, of patriotism, and of remembrance in which any group of good will and seemly purpose may hold services and feel at home in doing so.

In keeping with the religious emphasis at The Citadel, a full time chaplain is available to all cadets for counseling, guidance, and spiritual advice. Colonel Robert S. Hall, a retired U. S. Army chaplain, assumed this duty in March, 1958.

The regular nine o'clock service held every Sunday morning is attended by all cadets except those of the Roman Catholic, Greek, and Jewish faiths. Early every Sunday morning there is a low celebration of the Holy Communion for Episcopalians, followed by a low mass for Roman Catholics. At regular intervals—monthly, bi-monthly or quart-

erly, as is usual with the denomination—communion services are held for each of several Protestant groups directly following the nine o'clock service. Cadets of the Jewish faith attend religious instruction under a local rabbi in a room set aside for the purpose in Mark Clark Hall. The local Episcopal, Methodist, and Roman Catholic bishops provide chaplains for cadets of their denominations, and leading ministers of other sects act as spiritual advisors to cadets of their groups.

Special services are held for Episcopalians on Ash Wednesday and Good Friday, and special early masses on holy days of obligation for Roman Catholics. During the Advent season, and shortly before the beginning of the Christmas furlough, a great carol service is held. Annually, parallel religious emphasis week programs are conducted under three auspices—those for Protestant cadets, the Newman Club for Roman Catholics, and the Jewish Club for members of that faith. These programs, led by outstanding speakers, are intended to bring into clearer relief a sense of the dignity and manliness of the religious life.

In all of the services thus conducted and in the other influences which the college brings to bear on its cadets, it is sought to avoid the casual and the perfunctory. Cadets are encouraged to regard contacts with their churches as vital to their education and development, and the act of worship as a deeply significant experience that should be accompanied by dignity, reverence, and gratitude. Thus, on Sunday mornings one may view the impressive ceremony of battalions of cadets, each marching from its respective barracks across the drill field and converging on the chapel, and will sense no evidence of mere routine in their attitude. On the contrary, in this reassuring spectacle and in the service that follows, there is a fine manifestation of respect and reverence for this hour as the most significant of the entire week. The college realizes that these services, and the underlying religious life of which they are the outward manifestations, must be more than a mere gesture. Otherwise young men will find, as their intellectual horizons widen and they come into possession of the uncertain techniques of lay learning, that there is a temptation to abandon religious teaching as guide and to substitute "reason" for faith as the ultimate guide. From this peril education must protect itself by constantly reminding young people that education builds and enriches life not by abandoning religious faith as outmoded, but by accepting it as the source of truth and understanding.

The inscription on the front of the chapel is "Remember now thy Creator in the days of thy youth."

Religious Groups

For Episcopal cadets there is a student parish, "St. Alban's at The Citadel"; for Roman Catholic cadets, "The Citadel Newman Club"; and for each other group an appropriate club. These meet on Monday eve-

nings for instruction by the chaplain or spiritual advisor, and social functions are planned in co-operation with civilian young people's groups of similar churches in Charleston. At the 9 o'clock general service Sunday morning there is a de-emphasis on denominational doctrine; on Monday evenings doctrinal training is paramount, so that cadets may leave The Citadel stronger in their faith than before they entered.

Y. M. C. A.

The Citadel Y. M. C. A., organized in 1886, is an important part of the religious and social life of the cadets. The work is supervised by a student committee, a cabinet, and a full-time executive secretary.

Services of a leader in the field of religious education are engaged for a week during the college year which is known as Religious Emphasis Week. Daily meetings are held and an opportunity is afforded the cadets for personal conferences with the leader.

The Association also publishes a freshman handbook, *The Guidon*.

A sub-station of the United States Post Office is operated at The Citadel under the direction of the Y. M. C. A. Secretary.

Clubs and Fraternities

It is not considered in keeping with the democratic ideals of The Citadel to encourage the formation of exclusive societies or fraternities, membership in which is based on other requirements than individual worth and achievement. When new cadets report to the college, all are at once put in uniform and, as far as possible, all artificial distinctions based on wealth, position, or influence are minimized and the cadet is encouraged to achieve his place by individual merit. All cadets live under practically identical conditions, and all are rated by the same standards, but there is a wide range of opportunity for each to develop in accordance with his needs and aptitudes. Elsewhere in this booklet are described the various clubs, organizations, and activities that are open to all cadets.

Music

In addition to The Citadel band, which constitutes one of the drill and administrative units into which the Corps of Cadets is organized, the college affords several excellent ways in which cadets may develop their musical interests.

Through the Carnegie Corporation the college has acquired a very valuable music set consisting of an electric phonograph, nearly seven hundred records, and various books dealing with musicians and music appreciation.

The cadet orchestra, the "Bull Dogs," plays for the informal dances

and at other campus functions. The cadet choir, the music club, and the glee club are also important parts of college life.

The Library

The college library is located on the third floor of Bond Hall in a position of maximum accessibility to all departments. It contains a handsomely finished and equipped reading room covering the entire third floor of the extension to Bond Hall, with a gallery around three sides.

A reading room for periodicals and the stacks containing bound magazines are immediately adjacent. The library space is capable of seating approximately twenty per cent of the student body.

The book collection now contains over 70,000 volumes and is being increased at the rate of more than 3000 a year. Important additions have been made possible by gifts from Citadel alumni and other friends of the college.

The library subscribes regularly to over two hundred magazines and newspapers, and receives about a hundred more as gifts. It also maintains an extensive file of pamphlets.

In addition to the general collection, there are separate departmental libraries housed in the Departments of Civil Engineering, Chemistry, Physics, and Electrical Engineering. All of these volumes are listed in the catalogue of the college library. The entire fifth floor of Bond Hall is occupied by an extension of the library which contains certain less used and bulky material. It is accessible to the readers at all times.

Placement Committee

A faculty-staff group known as the Placement Committee assists graduates and members of graduating classes to secure positions. No charge is made for this service, but registration with the committee and submission of necessary data for preparation of case histories are prerequisites for this aid.

REQUIREMENTS FOR ADMISSION

Applicants for admission to The Citadel must be not less than sixteen nor more than twenty-one years of age. They must be at least five feet in height and physically able to do military duty.

Formal application for admission must be submitted by parent or guardian on the blank provided by The Registrar, The Citadel, Charleston, S. C.

Married men are not eligible for enrollment as cadets.

The requirements for admission to the freshman class are those prescribed by the Association of Colleges and Secondary Schools of the Southern States, of which The Citadel is a member. The standards of the Association require "the satisfactory completion of a four-year course of not less than fifteen units in a secondary school approved by a recognized accrediting agency, or in a secondary school that is a member of this Association, or the equivalent of such a course as shown by examination."

High school subjects required are 4 units of English; 2 of mathematics, one of which must be in algebra; 1 of history; and a total of 15 units, one of which must be algebra; 1 from fields of English, mathematics, social sciences, natural science, modern languages, and classical languages. For scientific and engineering courses, 2 units of algebra and 1 unit of plane geometry are strongly recommended. The other 5 units may be selected from any of the secondary school subjects accepted by an approved school for its diploma.

In addition to the above minimum scholastic requirements, acceptance for admission to The Citadel is determined by:

1. Grades through the first semester of the senior high school year,
2. Graduation from an accredited high school,
3. Recommendation of high school official,
4. Physical qualifications.

South Carolina applicants must furnish a written certificate signed by at least two (2) graduates of The Citadel who are residents of South Carolina certifying that in their opinion the applicant is a person of good moral character and will conform to the student life, ethical standards, and strict discipline of the College.

The Citadel authorities reserve the right, at their discretion, to require a non South Carolina applicant to have a written certificate signed by at least two (2) graduates of The Citadel certifying that in their opinion the applicant is a person of good moral character and will conform to the student life, ethical standards, and strict discipline of the College.

An entrance examination will be required of all new cadets entering The Citadel in the fall of 1959. More details on this examination are in a separate folder and will be sent to all applicants concerned.

A reservation fee of \$50.00 is required of all new cadets accepted for enrollment in the regular session at The Citadel, payable within 15 days after notification of final acceptance by the Registrar. The reservation fee will be applied to the first installment of regular college fees.

This fee is not refundable to newly accepted cadets who cancel their reservations after August 1.

It is suggested that applications be mailed not later than April 1.

For information regarding admission, write Colonel James W. Duckett, Registrar, The Citadel, Charleston, S. C.

Advanced Standing

The courses of study at The Citadel are outlined on pages 65 through 78, and no student will be accepted as a candidate for a diploma who has not had this work or its equivalent. It is therefore recommended that reference be made to the requirements for the freshman year before application is made for advanced standing. An applicant for advanced standing must be eligible to return to the college previously attended. He must also have had a high C average as shown by a transcript accompanying his application.

Reserve Officers Training is required and all applicants for admission to The Citadel with advanced standing must present credit for the basic ROTC courses which they would have taken as cadets at The Citadel. For sophomore standing, credit for first year basic ROTC is required; for junior standing, applicant must have completed the entire basic ROTC course of instruction.

A copy of DA Form 131 or AFROTC Form 41 attesting to completion of credits must be furnished with application or as soon thereafter as practicable for all previous ROTC credits claimed. Records must be received by the department head concerned prior to actual matriculation to permit determination of entrance level to be authorized.

It is the policy of the Department of Defense to require a student who has enrolled in an Army, Air Force, or Navy Unit of the Senior Division ROTC to be continued in that unit. This policy applies equally for students entering at a Military Junior College (MJC) or Military Institute (MI) at the preparatory level or to students transferring from other colleges or universities.

New cadets are not admitted except at the beginning of the session in September.

PROSPECTIVE STUDENTS

The Citadel encourages prospective students to visit the campus for weekends during the academic school year. This will give the student a first-hand opportunity to observe cadet life. Since space in barracks for these visits is limited, prospective visitors are requested to notify the Adjutant by letter at least two weeks before the planned visit. Visitors may eat their meals, at a nominal charge, in the cadet dining hall and stay in barracks at no charge.

EXPENSES

The Citadel, a state-supported institution, is operated on a non-profit basis. The cost of operation is borne through the collection of fees from the students and appropriations made by the General Assembly of South Carolina. The college reserves the right at any time to adjust fees collected from the students to meet the current cost of operation.

Payments

The Quartermaster of The Citadel is the Fiscal Officer, and all transactions relating to payments should be conducted through him. All remittances should be made by money order or check made payable to The Citadel and should be mailed directly to Lt. Colonel J. F. Bosch, Jr., Quartermaster.

The academic year at The Citadel is divided into two semesters. For the convenience of the parents an installment system has been instituted at The Citadel for the payment of college fees. The payment of college fees for each semester is due and payable on the following dates:

Payments	Date Due
Reservation Fee:	
Freshmen	Fifteen Days after Notice of Acceptance
Sophomores, Juniors and Seniors	On or before July 15th
First Semester:	
First Installment:	
Freshmen	September 8, 1958
Sophomores, Juniors and Seniors	September 16, 1958
Second Installment:	November 15, 1958
Second Semester:	
First Installment:	February 2, 1959
Second Installment:	April 1, 1959

Bills will be rendered by the Quartermaster to parents approximately one month prior to the date the installment is due. All college fees must be paid by the dates indicated in the above schedule. A student will not be permitted to register at the beginning of each semester if the first installment of the college fees or any other indebtedness to the college is not paid. If the second installment of the college fees of each semester is not paid by the due date, the student is subject to having his enrollment in the college canceled.

Fees

Reservation Fee: A reservation fee of \$50.00 is required of all cadets. This fee is not an additional charge but is an advance payment

towards fees due for the Fall Semester. It assures a cadet a place in the Corps of Cadets and barracks space for the following September.

All new cadets are required to pay this fee within fifteen days after notice of acceptance has been received from the Registrar. Old cadets currently enrolled who plan to continue their education at The Citadel are also required to pay the reservation fee not later than July 15 for the semester beginning in September.

The reservation fee will be refunded to both new and old students who notify the Registrar in writing not later than August 1 to cancel their reservations at The Citadel. After August 1 but prior to registration for the Fall Semester, this fee will be refunded only to those upperclassmen (sophomores, juniors, or seniors) who have been dropped from enrollment at The Citadel due to academic deficiencies or other causes.

Those students who complete registration for the fall semester will receive credit on the first installment for the reservation fee previously paid.

EDUCATIONAL:

Registration Fee.—All students are required to pay each academic year a registration fee of \$6.00, which is made in payments of \$3.00 each semester. This fee is intended to cover the general expenses incident to matriculation each semester. The fee is not refundable.

A charge of \$5.00 is made for late registration, regardless of the reason. The college cannot justify the expenses of making registration convenient for late students. Those students registering late will have to wait the convenience of those persons handling the registration and conform to the office hours which can be arranged without disturbing the routine of the offices concerned. Failure to complete registration for the semester on registration day may make the student subject to payment of the late registration fee.

Tuition.—The Board of Visitors of The Citadel has established the following tuition fees for South Carolina students and out-of-state students:

South Carolina Students—For all students whose guardians or parents reside in South Carolina the tuition fee has been established at \$80.00 per academic year or \$40.00 per semester.

Out-of-State Students—All students whose guardians or parents are non-residents of South Carolina will pay an out-of-state tuition fee. For all out-of-state students enrolled as of June 1, 1957, the tuition fee has been established at \$250.00 per academic year or \$125.00 per semester.

For all out-of-state students enrolling at The Citadel on or after June 1, 1957 and each succeeding year thereafter the out-of-state tuition fee has been established at \$320.00 per academic year or \$160.00 per semester.

This fee is not refundable.

STUDENT ACTIVITIES:

A fee of \$70.00 an academic year is assessed each student and is payable in payments of \$35.00 each semester. This fee is used for the support and maintenance of various student activities, such as the *Sphinx*, the cadet annual; the *Brigadier*, the cadet newspaper; the *Shako*, the literary magazine of the Corps of Cadets; the *Guidon*, and information and orientation handbook; the Y.M.C.A.; social functions, including dances; and athletics. That portion of the fee for athletics is not an admission fee to athletic contests since students are admitted to all athletics games free of charge. This fee is not refundable.

SERVICES AND SUBSISTENCE:

Board.—All students living on the campus are required to eat in the college dining hall. The cost is \$450.00 per academic year or \$225.00 per semester. Due to many uncontrollable factors, the college reserves the right to increase this fee at any time to meet current increases in the cost of operation. This fee is refundable on a pro-rata basis upon withdrawal from school.

Overhead and Maintenance.—A charge is assessed each student for the normal wear and tear and maintenance of the facilities used by the students and overhead on services provided the students. The Board of Visitors of The Citadel has established the following fee:

For all students enrolled as of June 1, 1957, the maintenance and overhead fee is \$8.00 per academic year or \$4.00 per semester.

For all students entering The Citadel after June 1, 1957 and each succeeding year thereafter the overhead and maintenance fee is \$30.00 per academic year or \$15.00 per semester.

Service Fee.—A charge of \$170.00 is made for the academic year of two semesters for room, light, water, janitor service, laundry, normal hospital care, and library use. This fee is refundable on a pro-rata basis. The College reserves the right to increase this fee at any time to meet current increases in the cost of operation.

DEPOSITS:

Breakage.—A \$5.00 deposit will be maintained by all cadets enrolled at The Citadel. When there is insufficient money in the cadet's Quartermaster Account to cover the cost of damages to buildings, rooms, equipment, or loss of R.O.T.C. manuals and government pro-

erty, this deposit will be used. This deposit is refundable after graduation or withdrawal from The Citadel.

Books and Supplies.—This deposit is used to cover the cost of books, supplies, uniform alterations, laboratory fees, engineering drawing equipment and supplies. The amount expended by each student varies. The required deposit is based on the average needs and in most cases is ample. If the deposit is not sufficient an additional deposit should be made. The required deposits are as follows:

Freshmen	\$75.00
Additional deposit for freshmen engineering students	\$40.00
(Students who elect engineering drawing will be rendered a supplementary bill for this deposit to cover the purchase of drawing instruments and supplies.)	
Sophomores	\$75.00
Juniors	\$50.00
Seniors	\$50.00

Uniforms.—All cadets are required to wear The Citadel uniform which is issued by the college. New cadets should not bring a supply of civilian clothes other than those which are worn upon reporting to the college as they are not permitted to wear civilian clothes except during authorized furloughs. It is also advisable to bring inexpensive trunks or suitcases since it is not permissible to retain them in the cadet's room; luggage must be stored in a warehouse provided for such at the risk of the owner.

Cost of uniforms should not be considered as an educational expense but rather a clothing expense which is incidental to attending any college. With proper care, the uniform should last for several years. Of course, the requirements during the subsequent years will depend on the manner in which the cadet has cared for his uniform. Small deposits are made in the sophomore, junior, and senior years to replace worn-out uniforms. The overall cost of the uniform should not exceed that which would be incurred in purchasing clothes to attend a civilian college. The uniform deposit requirements are as follows:

Freshman Year	\$400.00
Sophomore Year	120.00
Junior Year	15.00
Senior Year	15.00

The woolen uniforms issued to cadets are custom made for The Citadel. Once the uniforms have been fitted and issued to a cadet the entire cost will be charged to him.

Since the full dress uniform is tailor-made to the measurements of each cadet after enrolling at The Citadel, those cadets withdrawing

from the school will be charged a cancellation fee of \$4.50 for cancelling the purchase of the full dress uniform during its manufacture. The deadline for cancelling the purchase of the full dress uniform is November 15, 1958. After this date no cancellations will be accepted and the cadet will be charged the entire cost of the full dress uniform.

The cost of articles and uniforms issued to the freshmen during the 1957-1958 academic year was as follows:

Quantity	Article	Cost
1	Bed Spread, Citadel	\$ 5.76
1	Blanket, Citadel	9.47
1	Blouse, Dress, wool	43.05
1	Blouse, Full Dress, wool	58.85
1	Cap, blue	6.60
1	Cap, white with covers	6.60
1	Coat, Overcoat, wool	47.57
1	Coat, rain	20.57
4	Cuffs, pairs, @ \$.44	1.76
2	Covers, mattress, @ \$2.11	4.22
2	Gloves, pairs, dance @ \$.50	1.00
6	Gloves, pairs, drill @ \$.79	4.74
1	Gloves, pair, leather	3.04
1	Jacket, Tanker	11.39
1	Muffler	1.32
1	Scarf, rayon70
1	Shako, with pom pon, chain	10.73
8	Shirts, grey cotton @ \$2.76	22.08
2	Shirts, athletic @ \$.59	1.18
2	Shorts, athletic @ \$.73	1.46
1	Suit, sweat	2.74
8	Trousers, grey, cotton @ \$3.63	29.04
4	Trousers, White, full dress @ \$5.51	22.04
2	Trousers, Dress, wool @ \$19.16	38.32
1	Trousers, Full Dress, wool	19.48
Miscellaneous Items:		
1	Belt, waist; 4 Collars; 1 Cover, rain cap;	
2	Letters, company; 1 Links, pair, cuff; 2	
	Numerals, class; 1 Plate, breast; 1 Plate,	
	waist; Rental, cartridge box or music pouch;	
	supplies; 1 Tag, Name; 1 Tie; Citadel Patch	9.87
	Total	\$ 83.58
	S. C. Sales Tax	11.51
		\$395.09

The above prices were in effect during the 1957-1958 academic year and are subject to changes in accordance with the contract prices at the time of purchase by the cadets. Extra shirts, trousers, or other articles of uniform in excess of the above quantities are not included in the required deposit. Additional deposits should be made if extra shirts, trousers, or other articles of uniform are desired.

In order to keep the appearance of the Corps of Cadets at the highest level, an additional issue of one dress blouse, one pair dress trousers, and four cotton shirts has been authorized. Cadets in the Third Class (Sophomore Year) will be measured for these articles of uniforms in February with delivery being made not later than March 15 of the same year. A uniform deposit of \$80.00 is included in the first installment of the second semester of the sophomore fees to cover the cost of this issue of uniforms.

A white uniform has been approved and may be worn by the cadets. This uniform is optional. It may be purchased by depositing with the Quartermaster the cost of the uniform. The cost is approximately \$25.00.

The college does not operate a second-hand uniform department, nor can it assume responsibility of assisting in the disposal of uniform items for persons who own them. It is therefore requested that parents co-operate with college by not sending used uniforms to the Quartermaster or College Tailor requesting that they be sold. However, many cadets have been able to purchase used uniforms from former cadets. No used uniforms should be purchased until they have been inspected and approved by the inspecting military officer.

OTHER FEES:

Diploma Fee.—The charge for the diploma is \$6.00.

Transcript Fee.—Official transcripts of scholastic records will be furnished upon request. There is no charge for the initial transcript, but a fee of \$1.00 is charged on all subsequent ones. Remittances for transcripts should be made payable to the Quartermaster. The payment should accompany the application for the transcript and should be mailed directly to the Registrar.

Laboratory Fee.—A laboratory fee of \$7.50 a semester is charged students taking courses involving laboratory work in biology, chemistry, civil engineering, electrical engineering, geology, and physics. These laboratory fees are used to cover the added expense of supplies and costly equipment used in the teaching of these courses. This fee is not collected directly but is included in the estimated deposit for books and supplies, and is chargeable against the deposit.

A laboratory fee of \$5.00 a semester is charged to students of the Junior and Senior classes majoring in Physical Education.

Refunds

The size of the faculty and staff and other commitments of the college are based upon the enrollment at the beginning of the term. The fees collected are used to meet these commitments, many of which continue throughout the year. When cadets withdraw it is necessary, therefore, to retain all fees paid for registration, tuition, student activities, and maintenance. Unused portions of board, service fees, books and uniform deposits will be refunded.

Since the uniform and book deposits are estimated to cover the needs of the cadet for such purchases during the entire academic year, it should not be expected that the school refund this money to the cadet for his personal needs. The unexpended balances of these deposits will be returned upon request in June at the close of the academic year; otherwise, they will be held to the cadet's credit until the next academic year or until he withdraws from The Citadel.

Summary of Expenses of South Carolina Students**Educational Fees:**

	<i>Fresh- men</i>	<i>Sopho- mores</i>	<i>Juniors</i>	<i>Seniors</i>
Registration	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00
Tuition	80.00	80.00	80.00	80.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 86.00	\$ 86.00	\$ 86.00	\$ 86.00
Student Activities	\$ 70.00	\$ 70.00	\$ 70.00	\$ 70.00

Services and Subsistence:

Board	\$ 450.00	\$ 450.00	\$ 450.00	\$ 450.00
Overhead and Maintenance	30.00	30.00	8.00	8.00
Service Fee	170.00	170.00	170.00	170.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 650.00	\$ 650.00	\$ 628.00	\$ 628.00

Deposits:

Breakage	\$ 5.00	\$	\$	\$
Books and Supplies	75.00*	75.00	50.00	50.00
Uniforms	400.00	120.00	15.00	15.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 480.00	\$ 195.00	\$ 65.00	\$ 65.00
Total	<hr/>	<hr/>	<hr/>	<hr/>
	\$1286.00	\$1001.00	\$849.00	\$849.00

* An additional deposit of \$40.00 is required of freshmen students who elect engineering drawing.

Summary of Expenses for Out-of-State Students

Educational Fees:

	Fresh- men	Sopho- mores	Juniors	Seniors
Registration	\$ 6.00	\$ 6.00	\$ 6.00	\$ 6.00
Tuition	320.00	320.00	250.00	250.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 326.00	\$ 326.00	\$ 256.00	\$ 256.00
Student Activities	\$ 70.00	\$ 70.00	\$ 70.00	\$ 70.00
Services and Subsistence:				
Board	\$ 450.00	\$ 450.00	\$ 450.00	\$ 450.00
Overhead and Maintenance	30.00	30.00	8.00	8.00
Service Fee	170.00	170.00	170.00	170.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 650.00	\$ 650.00	\$ 628.00	\$ 628.00
Deposits:				
Breakage	\$ 5.00	\$	\$	\$
Books and Supplies	75.00*	75.00	50.00	50.00
Uniforms	400.00	120.00	15.00	15.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 480.00	\$ 195.00	\$ 65.00	\$ 65.00
Total	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 1526.00	\$ 1241.00	\$ 1019.00	\$ 1019.00

Schedule of Payments for South Carolina Students

Fresh- men	Sopho- mores	Juniors	Seniors
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First Semester:

1st Installment - 9/8/58†	\$ 668.00*	\$	\$	\$
1st Installment - 9/16/58†		318.00	262.50	262.50
2nd Installment - 11/15/58	200.00	200.00	194.50	194.50
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 868.00	\$ 518.00	\$ 457.00	\$ 457.00

Second Semester:

1st Installment - 2/2/59	\$ 218.00	\$ 283.00	\$ 197.50	\$ 197.50
2nd Installment - 4/1/59	200.00	200.00	194.50	194.50
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 418.00	\$ 483.00	\$ 392.00	\$ 392.00
Total Academic Year	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 1286.00	\$ 1001.00	\$ 849.00	\$ 849.00

* An additional deposit of \$40.00 is required of freshmen students who elect engineering drawing.

† The Reservation fee of \$50.00 will be credited to the first installment of the first semester.

Schedules of Payments for Out-of-State Students

	<i>Fresh- men</i>	<i>Sopho- mores</i>	<i>Juniors</i>	<i>Seniors</i>
First Semester:				
1st Installment - 9/8/58†	\$ 728.00*	\$	\$	\$
1st Installment - 9/16/58†		378.00	\$305.00	\$305.00
2nd Installment - 11/15/58	260.00	260.00	237.00	237.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 988.00	\$638.00	\$542.00	\$542.00
Second Semester:				
1st Installment - 2/2/59	\$ 278.00	\$343.00	\$240.00	\$240.00
2nd Installment - 4/1/59	260.00	260.00	237.00	237.00
	<hr/>	<hr/>	<hr/>	<hr/>
	\$ 538.00	\$603.00	\$477.00	\$477.00
Total Academic Year		<hr/>	<hr/>	<hr/>
	\$ 1526.00	\$1241.00	\$1019.00	\$1019.00
	<hr/>	<hr/>	<hr/>	<hr/>

† The Reservation fee of \$50.00 will be credited to the first installment of the first semester.

* A supplementary bill of \$40.00 will be rendered for freshmen students who elect engineering drawing.

**Summary of Estimated Expenses for Four Years
Based on Current Fees**

Students Enrolled as of June 1, 1957.

<i>Year</i>	<i>South Carolina Students</i>	<i>Out-of-State Students</i>
Freshman	\$1,178.00	\$1,348.00
Sophomore	943.00	1,113.00
Junior	849.00	1,019.00
Senior	849.00	1,019.00
 	<hr/>	<hr/>
Total Estimated Cost For Four Years	\$3,819.00	\$4,499.00
	<hr/>	<hr/>

Students Enrolling At The Citadel After June 1, 1957.

<i>Year</i>	<i>South Carolina Students</i>	<i>Out-of-State Students</i>
Freshman	\$1,286.00	\$1,526.00
Sophomore	1,001.00	1,241.00
Junior	871.00	1,111.00
Senior	871.00	1,111.00
 	<hr/>	<hr/>
Total Estimated Cost For Four Years	\$4,029.00	\$4,989.00
	<hr/>	<hr/>

R.O.T.C. ALLOWANCES

Students formally enrolled in Military or Air Science Courses I and II (Basic R.O.T.C.) at the present time are paid by the Federal Government an annual commutation of uniform allowance of \$50.00. Students formally enrolled in Military or Air Science Courses III and IV (Advanced R.O.T.C.) at the present time are paid a commutation of uniform allowance of \$100.00 each year for two years.

In addition to the commutation of uniform allowance those students enrolled in Military or Air Science Courses III and IV are paid a monetary allowance in place of subsistence. The current daily rate in place of subsistence is 90 cents, not to exceed 595 days. This money is paid each month directly to those students formally enrolled in the Military Science Courses and each calendar quarter to those students enrolled in the Air Science Courses. The amount averages approximately \$27.00 a month.

Students formally enrolled in Military or Air Science Courses III and IV are required to attend a summer camp upon completion of Military or Air Science Course III. The student will receive the pay on an Army Private or Basic Airman (\$78.00 a month) while attending camp and travel pay to and from camp at the rate of five cents a mile.

To be formally enrolled in the Army or Air ROTC, a Cadet must:
Be a citizen of the United States.

Be physically qualified under standards prescribed by the Department of the Army or the Department of the Air Force.

Be not less than sixteen and not over twenty-one years of age at the time of enrollment.

Be maintaining a satisfactory scholastic standing.

Relinquish, by transfer or discharge, membership in any non-air or army reserve organization.

Twenty-five (\$25.00) dollars will be credited each semester to the Quartermaster accounts of those cadets formally enrolled in the Military or Air Science I and II. Fifty (\$50.00) dollars will be credited each semester to the quartermaster accounts of those cadets formally enrolled in Military or Air Science Courses III and IV.

Summary of Estimated R.O.T.C. Allowances

Freshman Year:

Commutation of Uniform Allowance	\$ 50.00
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Sophomore Year:

Commutation of Uniform Allowance	\$ 50.00
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Junior Year:

Commutation of Uniform Allowance	\$100.00
Subsistence Allowance (Estimate)	\$232.20
	<hr/>
	\$332.20

Senior Year:

Commutation of Uniform Allowance	\$100.00
Subsistence Allowance (Estimate)	288.90
	<hr/>
	\$388.90

Summer Camp:

Pay of Basic Airman (four weeks)	78.00
Pay of an Army Private (Six Weeks)	\$117.75
Travel - five cents a mile to and from camp	

Additional Information

Unsatisfactory Accounts.—When a cadet's account is in an unsatisfactory condition, no honorable discharge will be made, no diploma will be awarded, and no transcript of credits will be provided until a satisfactory settlement of the account has been made.

Pocket Money.—The college does not handle pocket money accounts. All allowances for pocket money should be sent directly to the cadet. No estimate is made of this requirement, for the amount varies among the cadets and can best be determined by the cadet and parents. Dry cleaning, laundering of the white uniform, haircuts, and travel must be paid for out of the cadet's pocket money.

Cadets who receive substantial allowances for their personal needs should deposit this money in The Citadel Depository which is maintained for the accommodation and convenience of the cadets. This depository is located in Mark Clark Hall.

Clothing and Bedding

All cadets are required to furnish their own bed-clothes except a bed-spread and blanket which will be issued to each cadet. Both the bed-spread and the blanket are in Citadel colors and have the Citadel seal imprinted thereon. These items can be used after graduation on single beds.

Beds and mattresses are provided by the college, but pillows are not. Two mattress covers will be issued at cost to each cadet. Cadets *must* come provided with the following articles:

Three pajamas
One bathrobe

One pair tennis shoes
Six towels

Ten tee shirts and ten short drawers	One pillow
Twelve pairs of black socks	Three pillow cases
Twelve handkerchiefs	Four sheets for single bed
One pair bedroom slippers	One Army style blanket for single bed
Two pairs black shoes (with rubber heels)	Two large laundry bags
	Toilet articles

Since the school does not furnish bed linens, it is advisable that each cadet who ships his belongings to The Citadel bring with him two sheets, one pillow case, and one pillow for his use until he is able to get access to his belongings.

New cadets are advised to break in their cadet uniform shoes at least three weeks prior to reporting to The Citadel.

Before the opening of the session, a new cadet is assigned a laundry number, which he retains as long as he remains at The Citadel. Clothing should be marked with the name and full initials, as well as with laundry number, as follows: sheets, towels, and hankerchiefs, in the corner; pillow cases, in the corner at open end; collars, on inside near center; shirts, on bands at back of neck; socks, on leg near top; other articles, where most practicable.

Accommodations for Cadets During Holidays

Cadets who cannot go to their homes during the Christmas and Easter holidays may remain on the campus and occupy the visiting teams' dormitory. The barracks and the dining hall will be closed during vacations.

Employment

The time of a cadet at The Citadel is very largely taken up with his duties; hence there is no opportunity for employment either within the college or outside for the purpose of financial assistance.

Hospital

The hospital facilities at The Citadel are excellent, and all ordinary cases of sickness are treated by the surgeon and nurses of the college without expense to the parent. Surgical cases requiring the removal of a cadet to an infirmary in the city, services of a special nurse in the college hospital, and special treatment of eyes, ears, teeth, etc., must be at the expense of the parents or guardian.

SUMMER SESSION

A summer session is conducted for students who wish to accelerate their work or make up conditions.

The summer session must be self-supporting, and the same fees must be charged to both South Carolina and out-of-state students. Fees for the summer session are as follows:

Educational:

Registration	\$ 2.00
Tuition (\$9.00 a credit hour of work)	
Student Activities	5.50

Services:

Board (Subject to change)	150.00
Room (Subject to change)	48.00
Hospital Fee	5.00
Library Fee	2.00
Maintenance Fee	5.00

During the summer session all purchases of books and supplies will be on a cash basis. There will be no charging to the student's accounts since no book or supply deposits will be collected.

It is pointed out that bills for the summer session will not be sent to the parents by the Quartermaster. It is impossible for the Quartermaster to compute these bills since the tuition fee is based on the number of credit hours of work which is scheduled by the student. The student should come prepared with sufficient cash to take care of his fees for the summer session.

CIVILIAN STUDENTS

Civilian students are made up of veterans under Public Law 550, Public Law 346, veterans whose eligibility has expired, and certain classes of special students. These students are not required to enroll as cadets or to live on the campus.

Beginning with the 1957-1958 academic year the Veterans Program at The Citadel has been discontinued to all new students. Those veteran students currently enrolled at The Citadel will be permitted to complete their education.

It is pointed out to the veterans under Public Law 550 that there is an interim period before their checks are received from the Veterans Administration and that they should make arrangements to have sufficient funds to pay the first installments of each semester. Civilian students will be required to pay the fees on the dates as indicated in the following schedule. A student will not be permitted to register at the beginning of each semester if the first installment of the college fees is not paid. If the second installment of college fees of each semester is not paid on the date indicated, the student is subject to having his enrollment in the college cancelled.

The student activities fee assessed civilian students does not include

admission to the social functions, such as dances. The civilian students may purchase individual tickets to the dances which he desires to attend.

Summary of Expenses of Civilian Students

	South Carolina Students Upper Classmen	Out-of-State Students Upper Classmen
Educational Fees:		
Registration	\$ 6.00	\$ 6.00
Tuition	80.00	250.00
	_____	_____
Student Activities	\$ 86.00	\$ 256.00
	_____	_____
Service Fees:		
Library Fee	\$ 6.00	\$ 6.00
Overhead and Maintenance	8.00	8.00
Medical Fee	20.00	20.00
	_____	_____
	\$ 34.00	\$ 34.00
Deposits:		
Books, Laboratory fees,		
Supplies, etc.*	\$ 50.00	\$ 50.00
	_____	_____
Total	\$225.00	\$395.00

* An additional deposit of \$40.00 is required of those students who elect engineering drawing.

Schedule of Payments

	South Carolina Students Upper Classmen	Out-of-State Students Upper Classmen
First Semester:		
1st Installment - 9/16/58*	\$ 75.25	\$117.75
2nd Installment - 11/15/58	42.25	84.75
 Total First Semester	 \$117.50	 \$202.50
Second Semester:		
1st Installment - 2/2/59	\$ 65.25	\$107.75
2nd Installment - 4/1/59	42.25	84.75
 Total Second Semester	 \$107.50	 \$192.50
 Total Academic Year	 \$225.00	 \$395.00

* A supplementary bill of \$40.00 will be rendered for those students who elect engineering drawing.

SCHOLARSHIPS AND HONORS

Scholarships

Charleston City Scholarships

There are six scholarships maintained by the City of Charleston. Each of these is worth \$250.00 a year. Appointments are made by the Committee on Ways and Means of the City Council on the basis of competitive examination. Applicants must be residents of the City of Charleston.

The First Field Artillery Brigade, A.E.F., Scholarship.—Covering all expenses at The Citadel for four years; established in 1934 by Colonel Robert R. McCormick of Chicago, Ill. Limited to candidates from the State of Illinois. Qualifications:

1. Superior scholastic record.
2. General worth and personality as indicated by qualities of manhood, truth, courage, devotion to duty, and unselfishness.
3. Exhibition of moral force of character and qualities of leadership.
4. Physical vigor as shown by participation in manly sports.

Holder: T. F. Hadac, Brookfield, Ill. Vacant 1961.

The Fifth Field Artillery Scholarship.—Covering all expenses at The Citadel for four years; established in 1934 by Colonel Robert R. McCormick of Chicago, Ill. Limited to candidates from the State of Illinois. Qualifications the same as for the First Field Artillery Brigade Scholarship.

Holder: R. A. Daugherty, Chicago, Ill. Vacant 1960.

Baruch Scholarships.—Two scholarships with a value of \$250.00 each have been inaugurated from the income of a fund donated to The Citadel by Mr. Bernard Baruch. One is open to a rising senior and the other to a rising junior for one year.

Holder: E. F. Bargainier, Charleston, S. C. Vacant 1958.

T. J. O'Connor, Jr., Oyster Bay, N. Y. Vacant 1958.

Bond Scholarship.—Supported by the income from a trust fund established by alumni as a memorial to the late Colonel Oliver J. Bond. Present value \$150.00 a year for four years.

Holder: J. L. Epps, Jr., Newberry, S. C. Vacant 1961.

Western Electric Scholarship.—Awarded each year to an outstanding senior majoring in Electrical Engineering. Present value is about \$275.00.

Holder: G. M. Riddle, Bowling Green, S. C. Vacant 1958.

Star of the West Scholarship II.—This type of scholarship, awarded for the first time in 1952, covers all college expenses and is supported by the income from an anonymous Trust Fund. The scholarship is

available only to students of outstanding ability and attainment without reference to financial need.

Awarded to: C. E. Watts, III, Cheraw, S. C. Vacant 1958.

Star of the West Scholarship III.—A third award from the same Trust Fund as the other Star of the West Scholarships. It pays all college expenses and is given in recognition of outstanding ability and attainment.

Awarded to: C. A. Klinger, Johns Island, S. C. Vacant 1960.

Sottile Foundation Scholarships.—The Albert Sottile Foundation of Charleston, S. C., in accordance with its policy of furthering educational opportunities, offers several scholarships worth from \$100.00 to \$500.00 a year. Some scholarships are limited to young men in the employ of companies contributing to the Foundation, or to sons of the employees of said companies. Others are limited to Charleston County and are awarded by competitive examination.

Summerall Scholarship.—\$500.00 a year for four years, a scholarship in memory of General Charles Pelot Summerall, president of The Citadel 1931-1953.

Holder: J. D. Tompson, Mexico, Mo. Vacant 1959.

Cogswell Fund - Washington Light Infantry Scholarship.—Covers all expenses at The Citadel for four years. Limited to candidates who are members of the Washington Light Infantry.

Holder: A. J. Haltiwanger, Jr., Charleston, S. C. Vacant 1958.

General Robert E. Wood Scholarships.—Scholarships for \$1000.00 per year for four years were established in 1955 by Sears, Roebuck and Co. in honor of General Robert E. Wood, retired chairman, Board of Directors, Sears, Roebuck and Company.

Holders: J. W. Geeslin, Birmingham, Ala.

R. B. Croom, Wilmington, N. C.

Alton H. Bryant Memorial Scholarship.—This scholarship worth \$500.00 a year for four years. It is in memory of Alton H. Bryant, a graduate of the Class of 1940, who lost his life in the service of his country. Applicants are limited to residents of Orangeburg County.

Holder: P. L. Martin, Orangeburg, S. C. Vacant 1961.

P. P. Leventis, Sr., Scholarship.—This scholarship covers all college expenses and is supported by the income from a Trust Fund as a memorial to the late P. P. Leventis, Sr., outstanding Charlestonian. This scholarship is available to students of outstanding leadership and ability, without reference to financial need.

Holder: F. P. Mood, Jr., Summerton, S. C. Vacant 1960.

W. W. Benson Scholarship.—Pays all expenses. Named in honor of Major Benson, Class of 1907, and supported by his friends from Greenwood County.

Holder: W. E. Hughes, Greenwood, S. C. Vacant 1960.

Joseph D. Aiken Scholarships.—These scholarships cover all expenses for the first *three* years and are supported by a Trust Fund made possible by a bequest from the late Joseph D. Aiken. One of the scholarships is limited to candidates from the State of Connecticut and the other is limited to candidates from the State of Rhode Island.

Holder: G. P. Donehue, Stamford, Connecticut. Vacant 1960.

Edgar A. Terrell Scholarship.—This scholarship is worth \$600.00 per year for four years. It was made possible by a donation from Edgar A. Terrell, Class of 1915, and is limited to candidates from Mecklenburg County in North Carolina.

Academic Honors and Awards

Mark Clark Scholarship.—A \$500.00 scholarship awarded each year to one of the most outstanding members of the rising senior class.

Holder: W. L. Spearman, Columbia, S. C.

The James R. Crouch Scholarship.—The income from \$5,000.00 in bonds; founded in 1925 by the late James R. Crouch of Greenville, S. C. Present value \$100.00 a year for four years.

Holder: H. C. Black, Elloree, S. C. Vacant 1961.

The William States Lee Scholarship.—The income from \$6,000.00 in bonds; founded in 1925 by the late William States Lee of Charlotte, N. C. Present value \$150.00 a year for four years.

Post-Courier Scholarship.—The Post-Courier Foundation of Charleston, S. C., offers to *Post-Courier* carriers scholarships valued at \$1,000.00, distributed over a four-year period. These scholarships are limited to *Post-Courier* carriers who are residents of South Carolina. Awards are made each year, and the selections are made by committee appointed by the Foundation.

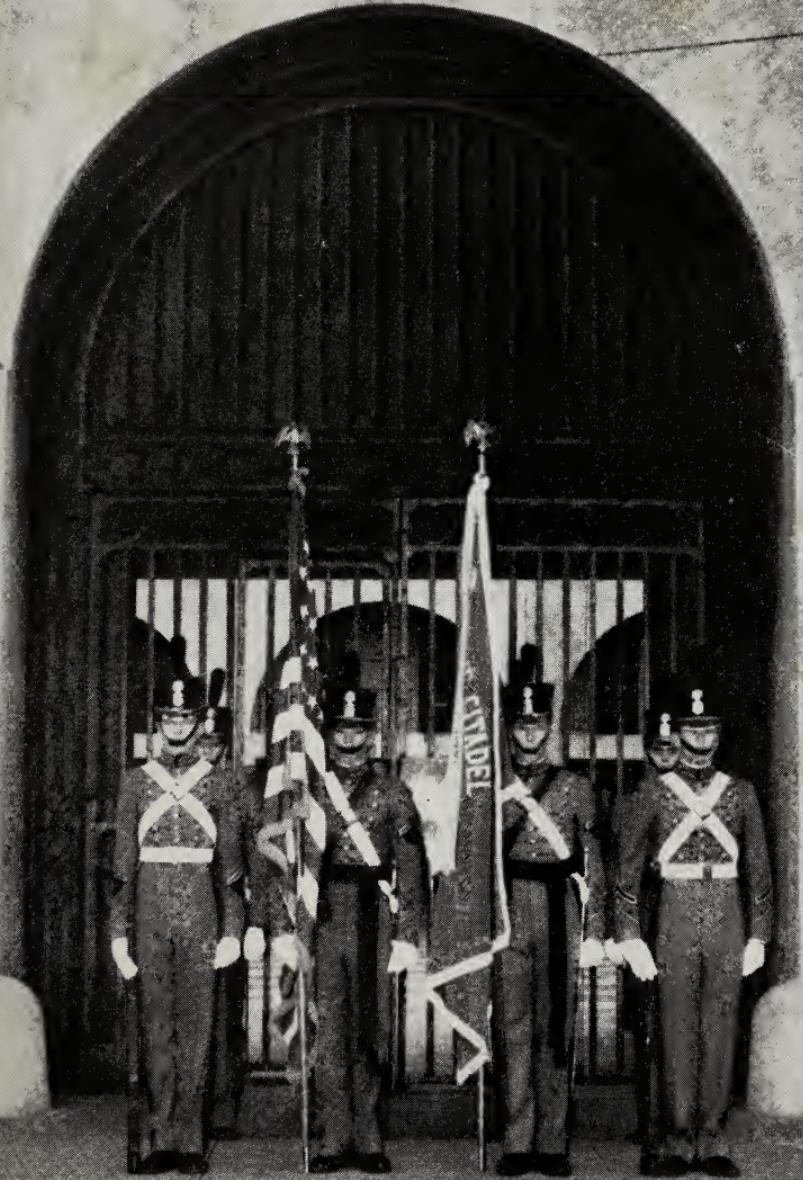
Holders: L. E. Dadin, Charleston, S. C.

L. T. Melfi, Charleston, S. C.

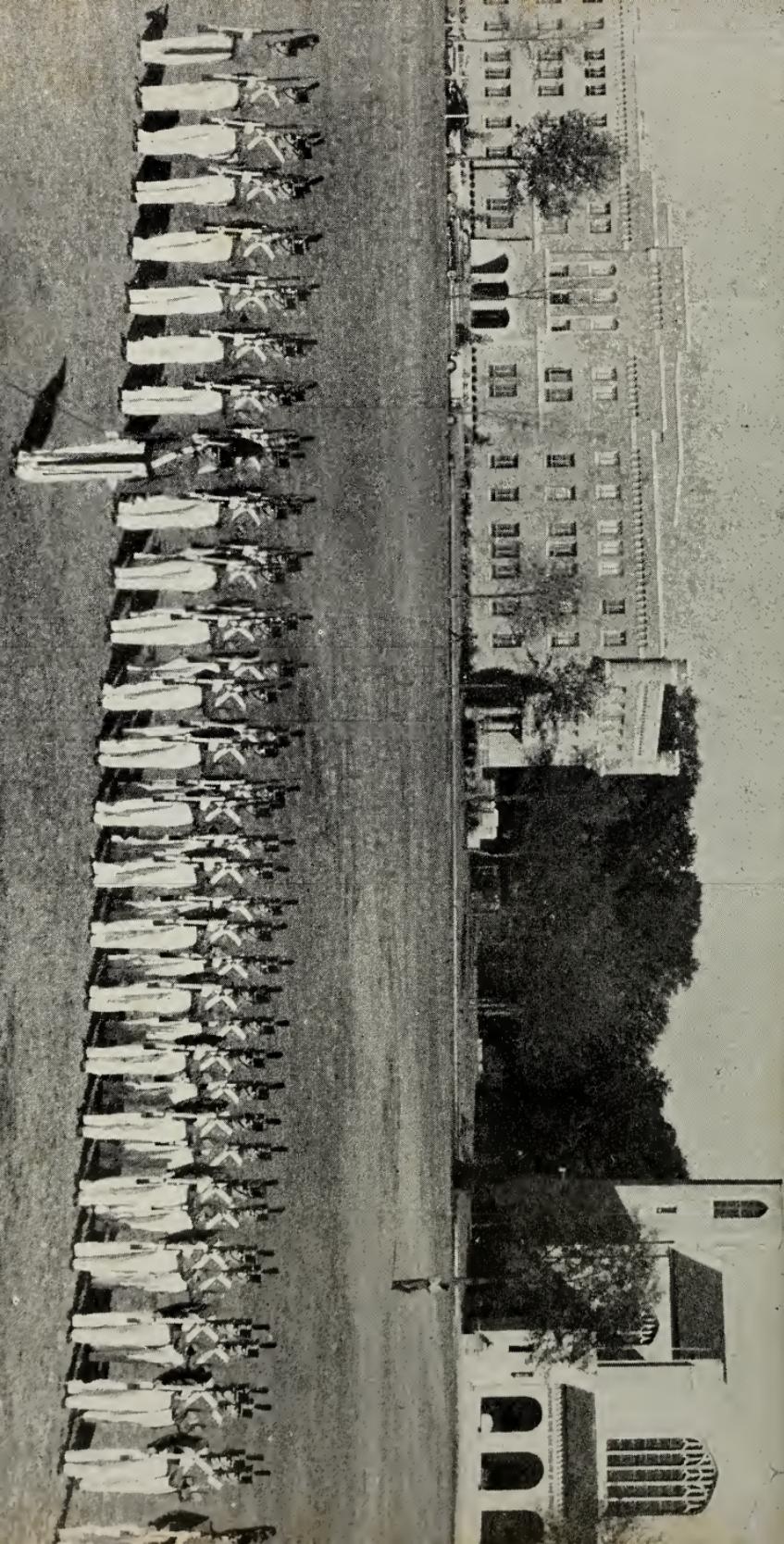
W. L. Martin, Jr., North Charleston, S. C.

The Scholarship Medal.—Presented annually by the Board of Visitors to the cadet graduating at the head of his class.

General High Honors.—Awarded to those cadets of the graduating class whose academic standing in each of the four college years does not fall below a grade point ratio of 3.67.



COLOR GUARD



SUMMERALL GUARDS

General Honors.—Awarded to those cadets of the graduating class who have maintained a grade point ratio of 3.50 to 3.66 during the four college years.

Departmental Honors.—Awarded on recommendation of heads of departments to those cadets of the graduating class who have established a grade point ratio of 3.50 or better in at least 36 semester hours work in a department, including all departmental work in the junior and senior years.

Dean's List.—This recognition given to those students registered for twelve or more semester hours whose grade point ratio is 3.00 or higher, with no grade below C, for the work of a semester.

The Gold Star.—Awarded to those students on the Dean's List who have made a grade point ratio of 3.67 or higher for the work of a semester. The star is worn on the collar of the uniform during the next semester.

The Citadel Honorary Society.—Membership in The Citadel Honorary Society is limited to members of the 1st class whose standing is in the upper eight per cent of their class.

The European Citadel Association Award.—A handsome silver cup awarded annually for one year to the company of cadets which makes the greatest improvement in scholastic work during the college year.

The Francis Marion Cup.—Awarded by the Rebecca Motte Chapter, D.A.R., to a cadet of the June graduating class for outstanding achievement in American History.

The Granville T. Prior Award.—A key and scroll presented annually by The Citadel History Club to the student whose senior essay is selected by a joint faculty committee as the best in the departments of English, history, modern languages, and political science. Named in honor of the late head of The Citadel History Department.

Military Honors and Awards

R.O.T.C. Distinguished Military Student Program—Students whose proficiency in Military Training and whose qualities of leadership and attention to duty have merited the approbation of the Professor of Military Science and Tactics are designated Distinguished Military Students. Upon graduation Distinguished Military Students are designated Distinguished Military Graduates. Distinguished Military Students are eligible to apply for appointment as Second Lieutenant in the Regular Army when they have registered for their last academic year.

Distinguished Air Force Reserve Officers Training Corps (AFROTC) Students and Graduates. The Professor of Air Science (PAS) may appoint as Distinguished AFROTC Students at the start of the second year advanced course AFROTC, students who have distinguished themselves by displaying outstanding qualities of leadership, adaptability to military training and academic ability. Students thus selected and appointed may be appointed Distinguished AFROTC Graduates upon graduation provided they have continued to display essential qualities. Distinguished AFROTC Students may apply for an appointment in the Regular Air Force during the 1st semester of their senior year. Distinguished Air Force ROTC Graduates, who are Distinguished AFROTC Students, who do not apply for appointment in the Regular Air Force in the 1st Semester of their senior year, may apply for Regular Air Force Commissions upon completion of one year active duty and will be given special consideration.

The 103rd Field Artillery Award.—Established by the veteran organization of that regiment as a trophy to be won each year by the company of cadets which has attained the best record in discipline.

The Air Force Association Award.—Presented each year to the outstanding First Class AFROTC Cadet for scholastic achievement.

The Armed Forces Chemical Association Award.—Awarded annually to a First Class AFROTC Cadet for outstanding achievements and scholastic attainments in the field of Air Science and Chemistry studies.

**The Commandant's Cup* — Presented to The Citadel by the late Lieutenant Colonel W. C. Miller; awarded annually for one year to the best drilled company.

Association of US Army Medal.—Donated by the Association of the United States Army and awarded annually to the outstanding Army ROTC cadet.

S. C. Reserve Officers Association Awards.—Donated annually by the South Carolina Reserve Officers Association and awarded to both the outstanding Army ROTC First Class Cadet and Air Force ROTC Second Class Cadet for demonstrated leadership ability, moral character, academic and other activities.

Armed Forces Communications and Electronic Association Awards.—Donated and awarded annually to both the outstanding Air Force and Army ROTC senior majoring in Electrical Engineering.

S. C. Sons of American Revolution Awards.—Donated and awarded annually to the outstanding Army and Air Force ROTC seniors selected on the basis of leadership ability, soldierly bearing, and excellence in theoretical studies.

* Competition held as part of commencement exercises.

Superior Cadet Ribbon Awards.—Awarded annually by the Department of the Army to the outstanding Army ROTC cadet in each academic class.

The Chicago Tribune Award—Presented annually to the outstanding member of each AFROTC class, Freshman through Senior.

Consolidated Vultee Aircraft Corporation Award.—Presented annually to an Air Science II Cadet selected for the advanced course in a category leading to flying training.

Republic Aviation Corporation Award.—Presented annually to the Air Science III Cadet who makes the most effective presentation of an Air Power theme.

National Defense Transportation Association Award.—Presented annually to a First Class AFROTC Cadet, majoring in Business Administration, who qualifies for the Air Force Specialty of Air or Surface Transportation Officer.

Air Force Association Award.—Presented each year to the outstanding First Class AFROTC Cadet based on the recommendation of the PAS.

The Washington Light Infantry Marksmanship Trophy and Medals.—A trophy awarded annually for one year to the organization whose team makes the highest score in small-bore rifle marksmanship; silver medals awarded to the members of the winning team and a gold medal to the cadet making the highest individual score; all presented by the Washington Light Infantry.

The Wade Hampton Saber.—Awarded annually by the South Carolina Division, U.D.C., to the member of the first class who has attained the highest standing in Military or Air Science and Tactics.

**The Star of the West Medal.*—Originally presented to The Citadel by Dr. B. H. Teague; awarded annually for one year to the best drilled cadet.

**The W. C. White Medal.*—Presented annually by Mrs. W. C. White to the captain of the best drilled company.

General Honors and Awards

The Carlisle Norwood Hastie Award.—Awarded to a member of the graduating class whom his classmates elect as having shown the most tact, consideration, and courtesy to his fellow students.

The Algernon Sydney Sullivan Awards.—Bronze medallions presented by the college, through the benefaction of the New York Southern Society, to students or others in recognition of high thought and noble

* Competition held as part of commencement exercises.

endeavor; established by that Society in 1925, the awards have been made to The Citadel since 1933.

The John O. Willson Ring.—The bequest of Dr. John O. Willson, given annually to the member of the first class voted by his classmates the manliest, purest, and most courteous member of his class.

DEPARTMENTS OF INSTRUCTION

The Objectives of The Citadel

The objectives of The Military College of South Carolina are to offer such courses in the liberal arts and sciences as will develop the mind and character of the student, increase his likelihood of success in any useful pursuit, and fit him to discharge the duties of citizenship; to give to students who so desire professional training in Civil Engineering, Electrical Engineering, and Business Administration; to see that its graduates are adequately equipped in their respective fields of concentration to enter in full standing post-graduate, professional, or technical schools; and to qualify them for commissions in the Officers' Reserve Corps of the Armed Forces.

Courses

The course of study is essentially the same for all freshmen except those in Engineering where drawing is taken in place of a modern language. Certain subjects are required in the sophomore year of all students, the remaining subjects being determined by the course which the student is to follow during his junior and senior years. Major work is offered in the following departments: Business Administration, Chemistry, Civil Engineering, Education, Electrical Engineering, English, History, Mathematics, Modern Languages, Physics, Political Science, and Physical Education. Thorough pre-medicine and pre-dentistry courses are available.

A statement of the courses required each year in each department and a detailed description of the various courses will be found in the following pages.

Grades

A, B, C, and D are passing grades. F represents failure. I represents work of a satisfactory character incomplete for acceptable reasons.

Grade reports are mailed to parents or guardians at the end of each semester. Twice during each semester, at the end of six and twelve

weeks respectively, reports are sent to parents showing the status of the cadet's academic work at that time.

Changes in schedule must be effected during the first ten days of the term. A subject dropped after the first three weeks have passed will receive a grade of F.

Promotions

No student will be promoted who has a grade of F in more than two semester courses. In addition, to be classified as a third classman a student must have credit for at least twenty-six (26) semester hours and have accumulated a minimum of thirty-four (34) quality points. For advancement from the third to second class a student must have credit for at least sixty-four (64) semester hours and have accumulated a minimum of one hundred (100) quality points. For promotion to the first class a student must be able to graduate within two semesters from the date of promotion and have accumulated a minimum of one hundred ninety (190) quality points.

For purposes of ascertaining quality points and/or grade point ratio (GPR), to determine class standing or promotion, grades shall be weighted as follows: A, 4 points per semester hour; B, 3 points; C, 2 points; D, 1 point; F, zero points. The total of the weighted grades divided by the total credit hours taken by the student is the grade point ratio (GPR).

Minimum Requirements for Continuance in College

Any full-time student who fails to achieve the following minimum requirements shall be required to withdraw from The Citadel:

(1) Credit Hours and Quality Points.

- (a) at least 18 semester hours credit and 27 quality points in the twelve-month period after entrance,
- (b) at least 21 semester hours credit and 36 quality points in the second, third, and fourth twelve-month periods,
- (c) at least 64 semester hours credit and 100 quality points at the end of the third twelve-month period.

(2) Number of Times Student May Fail A Course:

- (a) A student who has twice failed a semester course in the regular session and has not made up this failure by the subsequent September shall be required to withdraw from The Citadel.
- (b) A student who has failed a semester course three times shall be required to withdraw from The Citadel.

The Registrar shall notify in June all students who have failed to meet the minimum standards that they must make up their deficiencies

in summer school in order to be eligible to continue at The Citadel in September.

Any student who is required to withdraw from The Citadel for academic reasons may request from the President permission to reenter. The earliest time a reentrance will be made will be one semester after his withdrawal.

Requirements for Graduation

For graduation a student must have completed satisfactorily one of the courses of study outlined in the catalogue and must have accumulated a minimum of 280 quality points.

It is also a requisite for graduation that every senior prepare a senior essay on a subject chosen from his field of concentration. This essay is designed as an exercise in the preparation of a formal research paper, measuring up to commonly accepted professional standards, and is wholly apart from the requirements of a particular course in the curriculum. The writing of the senior essay shall be done in residence.

For the sake of uniformity it is recommended that the subject of the senior essay be selected in all departments not later than eight weeks after the opening of college and that the preliminary draft be submitted not more than twenty weeks after the opening of college. The final date for approval of the senior essay shall be two weeks before Commencement.

In addition to the formal credits required for graduation, the candidate must have demonstrated that he is of high character and worthy to receive the diploma of the college. Recommendations for graduation are made by the Academic Board to the Board of Visitors, who in turn award the diplomas.

Degrees

The degree of Bachelor of Arts is conferred upon satisfactory completion of the English, History, Modern Language, Political Science programs of study. The degree of Bachelor of Science is conferred upon satisfactory completion of the Chemistry, Mathematics, Physics, Education, Physical Education, and Pre-Medical programs.

The degree of Bachelor of Science in Commerce is awarded to students who complete satisfactorily the course in Business Administration.

Graduates in Civil Engineering receive the degree of Bachelor of Science in Civil Engineering. Graduates in Electrical Engineering receive the degree of Bachelor of Science in Electrical Engineering.

Classification of Cadets

The cadets are arranged in four distinct classes, corresponding with

the four years of study. Cadets pursuing the first year's course constitute the Fourth or Freshman Class; those taking the second year's course, the Third or Sophomore Class; those in the third year's course, the Second or Junior Class; and those in the fourth year's course, the First or Senior Class.

Courses of Study

In the following pages will be found a detailed schedule of the curriculum required for each degree according to the major subject elected. The clock hours and the credit value of each course are noted. The individual courses are described under the appropriate departmental heading in the pages following the schedules.

The Biology and Geology courses are given in the Department of Chemistry; the Drawing, in the Department of Civil Engineering; the Psychology, Philosophy, and Sociology, in the Department of Education.

The courses of the fourth class are numbered from 101 upward, of the third class from 201 upward, of the second class from 301 upward, and of the first class from 401 upward.

GREATER ISSUES COURSE

In order to bring all Citadel students into closest possible contact with outstanding leaders of thought and action in the nation, General Mark W. Clark inaugurated in 1954-55. his first full year after assuming the presidency of The Citadel, a Greater Issues Course. Its purpose is to bring to The Citadel annually speakers of national and international reputation. Each is invited to discuss some segment of public affairs with which he is especially familiar, after which he answers questions from the floor. The Greater Issues Course is a part of the curriculum of every Citadel student and has proved of outstanding interest and value.

Speakers for the first year were General Matthew B. Ridgeway, Chief of Staff for the Army; Senator William F. Knowland of California; Admiral Robert B. Carney, Chief of Naval Operations of the United States Navy; Rear Admiral Jerauld Wright, Commander-in-Chief, Atlantic Fleet; Francis Cardinal Spellman, Roman Catholic Archbishop of New York; Henry J. Taylor, General Motors news analyst on the CBS radio network; Dr. Karl Gruber, Austrian Ambassador to the United States; Lowell Thomas, noted CBS news analyst and writer; and General T. D. White, Vice Chief of Staff, United States Air Force.

The speakers in 1955-56 were James A. Farley, Chairman of the Board of the Coca-Cola Export Corp.; General Robert E. Wood, Chairman of the Board of Sears Roebuck and Company; General Max-

well D. Taylor, Chief of Staff of the United States Army; General Nathan D. Twining, Chief of Staff of the United States Air Force; Sir Roger Makins, British Ambassador to the United States; Admiral Arleigh A. Burke, Chief of Naval Operations of the United States Navy; Senator Barry M. Goldwater of Arizona; Senator Henry M. Jackson of Washington; and General Alfred M. Gruenthal, Supreme Commander of the Allied Forces in Europe.

Speakers in 1956-57 were Mr. Ben C. Limb, Ambassador from Korea to the United Nations; Dr. Billy Graham, evangelist; Mr. Hollington Tong, Ambassador of the Chinese Republic; Gen. Curtis E. LeMay, Commander-in-Chief, Strategic Air Command; Gen. Randolph McCall Pate, Commandant, USMC; and Mr. Robert D. Murphy, Deputy Under-Secretary of State.

Prior to Christmas 1957, General Clark brought to The Citadel Mr. John S. Gleason, Jr., National Commander of the American Legion; and Mr. Frank Pace, Jr., President of General Dynamics Corporation and former Secretary of the Army. Announced for early 1958 are Brig. Gen. David Sarnoff, Chairman of the Board of the Radio Corporation of America; U. S. Sen. Stuart Symington, (D.Mo.), former Secretary of the Air Force; and Lt. Gen. Leslie R. Groves, war-time director of the famed Manhattan Project which developed the first atomic bomb.

BUSINESS ADMINISTRATION MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Clock Hrs. Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composititon and Literature.....	Engl. 101,102 or Engl. 103,104	36 36	3 4	0 0	6	
Introduction to General Chemistry....	Chem. 103,104	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
A Modern Language.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Introduction to College Physics.....	Phys. 203,204	36	3	2	8	
Economic Origins and Principles.....	B. Ad. 201	18	3	0	3	
Economic Principles and Problems.....	B. Ad. 202	18	3	0	3	
Raw Material Wealth.....	B. Ad. 203	18	3	0	3	
Business Psychology.....	B. Ad. 204	18	3	0	3	
A Modern Language.....		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	36
SECOND CLASS						
Accounting Principles and Practices... Advanced Accounting Theory and	B. Ad. 303 Practice.....	18 18	2 2	2 2	3 3	
Business Law.....	B. Ad. 305	18	3	0	3	
Business Organization.....	B. Ad. 306	18	3	0	3	
Principles of Labor.....	B. Ad. 307	18	3	0	3	
General Insurance.....	B. Ad. 308	18	3	0	3	
Marketing.....	B. Ad. 309	18	3	0	3	
Foreign Trade.....	B. Ad. 310	18	3	0	3	
Government Finance.....	B. Ad. 311	18	3	0	3	
Taxation.....	B. Ad. 312	18	3	0	3	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	36
FIRST CLASS						
Industrial Accounting.....	B. Ad. 401	18	2	2	3	
Adv. Accounting Problems.....	B. Ad. 402	18	2	2	3	
Corporation Finance.....	B. Ad. 403	18	3	0	3	
Investments.....	B. Ad. 404	18	3	0	3	
Sales Administration.....	B. Ad. 405	18	3	0	3	
Transportation.....	B. Ad. 406	18	3	0	3	
Money.....	B. Ad. 407	18	3	0	3	
Banking.....	B. Ad. 408	18	3	0	3	

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec. Lab.	Sem. Hr. Credits	Total
Personnel Management.....	B. Ad. 409	18	3 0	3	
Production.....	B. Ad. 410	18	3 0	3	
Senior Essay.....	B. Ad. 420	18		2	
2nd Year Advanced R.O.T.C.....	401,402	36	4 4	6	38
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CHEMISTRY MAJOR

FOURTH CLASS

Composition and Literature.....	Engl. 101,102 or Engl. 103,104	36	3 0 4 0	6	
General Chemistry.....	Chem. 101,102	36	3 2	8	
College Algebra.....	Math. 111	18	3 0	3	
Trigonometry.....	Math. 112	18	3 0	3	
Analytic Geometry.....	Math. 113	18	3 0	3	
Survey of American History.....	Hist. 101,102	36	3 0	6	
1st Year Basic R.O.T.C.....	101,102	36	2 4	4	33

THIRD CLASS

Survey of English Literature.....	Engl. 201,202	36	3 0	6	
Elementary College Physics.....	Phys. 201,202	36	3 2	8	
The Calculus.....	Math. 201,202	36	5 0	10	
Qualitative Analysis.....	Chem. 201,202	36	2 3	6	
Elementary German.....	Ger. 101,102	36	3 0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2 4	4	40

SECOND CLASS

Quantitative Analysis.....	Chem. 301,302	36	2 4	8	
Organic Chemistry.....	Chem. 303,304	36	3 3	8	
Inorganic Chemistry.....	Chem. 305,306	36	3 0	6	
Scientific German.....	Ger. 201,202	36	3 0	6	
Elective.....		36	3 0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4 4	6	40

FIRST CLASS

Physical Chemistry.....	Chem. 401,402	36	3 3	8	
Adv. Topics in Organic Chemistry.....	Chem. 403,404	36	3 0	6	
Advanced Quantitative Analysis.....	Chem. 407	18	2 4	4	
Qualitative Organic Chemistry.....	Chem. 408	18	2 4	4	
Organic Preparations.....	Chem. 409	18	1 4	3	
Elective.....		18	3 0	3	
Senior Essay.....	Chem. 420	18	0 0	2	
2nd Year Advanced R.O.T.C.....	401,402	36	4 4	6	36

CIVIL ENGINEERING

Subject	Course No.	No. of Weeks	Clock Hrs. a week	Rec.	Lab.	Semi. Hrs.	Credits	Total
FOURTH CLASS								
Composition and Literature.....	Engl. 101,102	36	3	0	0	6		
or Engl. 103,104		36	4	0	0			
General Chemistry.....	Chem. 101,102	36	3	2	0	8		
College Algebra.....	Math. 111	18	3	0	0	3		
Trigonometry.....	Math. 112	18	3	0	0	3		
Analytic Geometry.....	Math. 113	18	3	0	0	3		
Drawing & Descriptive Geometry.....	C.E. 101,102	36	0	4	4	4		
Survey of American History.....	Hist. 101,102	36	3	0	0	6		
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	4		37
THIRD CLASS								
Survey of English Literature.....	Engl. 201,202	36	3	0	0	6		
Elementary College Physics.....	Phys. 201,202	36	3	2	0	8		
The Calculus.....	Math. 201,202	36	5	0	0	10		
Engineering Drawing.....	C.E. 201	18	0	4	4	2		
Analytic Mechanics and								
Graphic Statics.....	C.E. 202	18	2	2	2	3		
Photogrammetry.....	C.E. 204	18	0	2	2	1		
Surveying.....	C.E. 205,206	36	3	2	2	8		
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	4		42
SECOND CLASS								
Analytic Mechanics.....	C.E. 301	18	4	0	0	4		
Mechanics of Materials.....	C.E. 303,304	36	3	0	0	6		
Highway Engineering.....	C.E. 305	18	3	0	0	3		
Highway Engineering.....	C.E. 306	18	2	2	2	3		
Materials Laboratory.....	C.E. 307	18	0	4	4	2		
Stress Analysis.....	C.E. 308	18	2	2	2	3		
Engineering Law.....	C.E. 310	18	3	0	0	3		
Engineering Geology.....	Geol. 303	18	3	2	2	4		
Electrical Engineering.....	E.E. 306	18	3	2	2	4		
Elective.....		36	3	0	0	6		
1st Year Advanced R.O.T.C.....	301,302	36	4	4	4	6		44
FIRST CLASS								
Concrete Laboratory.....	C.E. 401	18	1	2	2	2		
Soil Mechanics Laboratory.....	C.E. 402	18	1	2	2	2		
Reinforced Concrete.....	C.E. 403,404	36	3	0	0	6		
Steel Theory and Design.....	C.E. 405,406	36	3	2	2	8		
Hydraulics.....	C.E. 407	18	3	2	2	4		
Water Supply & Sewerage.....	C.E. 408	18	3	0	0	3		
Soil Mechanics & Foundations.....	C.E. 409,410	36	3	0	0	6		
Senior Essay.....	C.E. 420	18				2		
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	4	6		39

EDUCATION MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week	Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or Engl. 103,104		36	4	0		
General Chemistry.....						
Chem. 103,104		36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
Modern Language.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Introduction to College Physics.....	Phys. 203,204	36	3	2	8	
General Biology.....	Biol. 203,204	36	3	0	6	
Educational Psychology.....	Psy. 201	18	3	0	3	
Psychology of Adolescence.....	Psy. 202	18	3	0	3	
*Social Science.....		18	3	0	3	
Modern Language or Elective.....		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	39
SECOND CLASS						
Philosophy of Education.....	Ed. 301	18	3	0	3	
Educational Tests & Measurements.....	Ed. 306	18	3	0	3	
Health Education.....	Ph. Ed. 301	18	3	0	3	
Music Appreciation.....	Art 305	18	3	0	3	
Art Appreciation.....	Art 306	18	3	0	3	
Guidance.....	Ed. 303	18	3	0	3	
Public Speaking.....	Engl. 205	18	3	0	3	
Major Elective		36	3	0	6	
Major Elective		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	39
FIRST CLASS						
Directed Teaching.....	Ed. 400	18	0	6	0	
Methods and Materials of						
Secondary School Teaching.....	Ed. 401	18	3	0	3	
Principles and Problems of						
Secondary Education.....	Ed. 402	18	3	0	3	
Seminar in Secondary Education.....	Ed. 403	18	3	0	3	
Audio-Visual Aids.....	Ed. 407	18	3	0	3	
*Social Science.....		18	3	0	3	
Elective.....		36	3	0	6	
Senior Essay.....	Ed. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	35

* The two Social Science courses must be in different fields.

ELECTRICAL ENGINEERING

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Clock Hrs. a week Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or Engl. 103,104		36	4	0		6
General Chemistry.....	Chem. 101,102	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Analytic Geometry.....	Math. 113	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
Drawing & Descriptive Geometry.....	CE. 101,102	36	0	4	4	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	37
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Elementary College Physics.....	Phys. 201,202	36	3	2	8	
The Calculus.....	Math. 201,202	36	5	0	10	
Engineering Drawing.....	C.E. 201	18	0	4	2	
Introduction to Electrical Eng.....	E.E. 202	18	3	0	3	
Surveying.....	C.E. 205,206	36	3	2	8	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	41
SECOND CLASS						
Differential Equations.....	Math. 301,302	36	3	0	6	
Advanced General Physics.....	Phys. 301,302	36	5	0	10	
D. C. Circuits & Machines.....	E.E. 301	18	5	0	5	
D. C. Machines, Laboratory.....	E.E. 303	18	0	4	2	
A. C. Circuits & Machines.....	E.E. 302	18	5	0	5	
A. C. Machines, Laboratory.....	E.E. 304	18	0	4	2	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	42
FIRST CLASS						
Electronics.....	E.E. 401,402	36	5	0	10	
Electronics Laboratory.....	E.E. 403,404	36	0	4	4	
Electrical Measurements.....	E.E. 405	18	3	0	3	
Electrical Measurements Lab.....	E.E. 407	18	0	4	2	
Heat Engines.....	E.E. 409	18	3	0	3	
Advanced A. C. Theory.....	E.E. 411	18	3	0	3	
Transmission Lines.....	E.E. 408	18	3	0	3	
Power Plant Engr. & Design.....	E.E. 410	18	3	0	3	
Public Speaking.....	Engl. 205	18	3	0	3	
Senior Essay.....	E.E. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	42

ENGLISH MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week	Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or Engl. 103,104		36	4	0	6	
Introduction to General Chemistry....	Chem. 103,104	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
A Modern Language.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Intro. to College Physics.....	Phys. 203,204	36	3	2	8	
European Civilization since 1500.....	Hist. 201,202	36	3	0	6	
The English Language.....	Engl. 203,204	36	3	0	6	
A Modern Language.....		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	36
SECOND CLASS						
English Course*.....		36	3	0	6	
English Course*.....		36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	36
FIRST CLASS						
English Course*.....		36	3	0	6	
English Course*.....		36	3	0	6	
English Course*.....		36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
Senior Essay.....	Engl. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	38

* See page 112 for detailed statement regarding courses in junior and senior years.

HISTORY MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Lab.	Sen. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or Engl. 103,104		36	4	0		
College Algebra.....						
Math. 111		18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Introduction to General Chemistry....	Chem. 103,104	36	3	2	8	
Survey of American History.....	Hist. 101,102	36	3	0	6	
A Modern Language.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Introduction to College Physics.....	Phys. 203,204	36	3	2	8	
European Civilization since 1500.....	Hist. 201,202	36	3	0	6	
American National Government.....	Polit. 201	18	3	0	3	
State & Local Government.....	Polit. 202	18	3	0	3	
A Modern Language.....		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	36
SECOND CLASS						
History of England.....	Hist. 301,302	36	3	0	6	
United States since 1900, or.....	Hist. 303,304	36	3	0	6	
Europe since 1870.....	Hist. 305,306	36	3	0	6	
Economic Foundations of Mod. Life....	Polit. 307,308	36	3	0	6	
A One-Semester History Course.....		18	3	0	3	
Elective.....		18	3	0	3	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	36
FIRST CLASS						
American Diplomatic History, or.....	Hist. 401,402	36	3	0	6	
Latin American History, or.....	Hist. 403,404	36	3	0	6	
The Far East.....	Hist. 409,410	36	3	0	6	
Colonial America, or.....	Hist. 405,406	36	3	0	6	
The Ancient World.....	Hist. 407,408	36	3	0	6	
International Politics, or.....	Polit. 405,406	36	3	0	6	
Constitutional Law.....	Polit. 401,402	36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
Senior Essay.....	Hist. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	38

MATHEMATICS MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week	Rec.	Lab.	Sem. Hr. Credits	Total
FOURTH CLASS							
Composition and Literature.....	Engl. 101,102	36	3	0	0	6	
or Engl. 103,104		36	4	0	0	6	
GENERAL CHEMISTRY							
General Chemistry.....	Chem. 101,102	36	3	2	0	8	
College Algebra.....	Math. 111	18	3	0	0	3	
Trigonometry.....	Math. 112	18	3	0	0	3	
Analytic Geometry.....	Math. 113	18	3	0	0	3	
A Modern Language.....		36	3	0	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	4	33
THIRD CLASS							
Survey of English Literature.....	Engl. 201,202	36	3	0	0	6	
Elementary College Physics.....	Phys. 201,202	36	3	2	0	8	
The Calculus.....	Math. 201,202	36	5	0	0	10	
Survey of American History.....	Hist. 101,102	36	3	0	0	6	
A Modern Language.....		36	3	0	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	4	40
SECOND CLASS							
Differential Equations.....	Math. 301,302	36	3	0	0	6	
Advanced Mathematics.....		36	3	0	0	6	
Elective.....		36	3	0	0	6	
Elective.....		36	3	0	0	6	
Elective.....		36	3	0	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	4	6	36
FIRST CLASS							
Advanced Mathematics.....		36	3	0	0	6	
Advanced Mathematics.....		36	3	0	0	6	
Elective.....		36	3	0	0	6	
Elective.....		36	3	0	0	6	
Elective.....		36	3	0	0	6	
Senior Essay.....	Math. 420	18				2	
2nd Year Advanced R.O.T.C.....	401,402	26	4	4	4	6	38

MODERN LANGUAGE MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Clock Hrs. a week Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102 or Engl. 103,104	36 36	3 4	0 0	6	
Introduction to General Chemistry....	Chem. 103,104	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
A Modern Language.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Introduction to College Physics.....	Phys. 203,204	36	3	2	8	
European Civilization since 1500.....	Hist. 201,202	36	3	0	6	
French - Elementary or Intermediate		36	3	0	6	
Spanish or German		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	36
SECOND CLASS						
Intermediate French, or).....	Fren. 201,202	36	3	0	6	
Survey of French Literature).....	Fren. 301,302	36	3	0	6	
Inter. or Advanced Spanish, or).....		36	3	0	6	
Inter. or Advanced German).....		36	3	0	6	
French Composition and Con-)						
versation, or)....	Fren. 401,402	36	3	0	6	
An Additional Course in)						
Spanish or German)....		36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	36
FIRST CLASS						
Advanced French.....		36	3	0	6	
German Literature, 19th Cen-)						
tury, or)....	Ger. 301,302	36	3	0	6	
Faust, or)....	Ger. 401,402	36	3	0	6	
Spanish Literature of Golden)						
Age, or)....	Span. 301,302	36	3	0	6	
Spanish-American Literature)....	Span. 303,304	36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		36	3	0	6	
Senior Essay.....	420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	38

PHYSICAL EDUCATION MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week	Rec.	Lab.	Sein. Hr.	Credits	Total
FOURTH CLASS								
Composition and Literature.....	Engl. 101,102	36	3	0	0	6		
or Engl. 103,104		36	4	0	0			
Introduction to General Chemistry.....	Chem. 103,104	36	3	2	0	8		
College Algebra.....	Math. 111	18	3	0	0	3		
Trigonometry.....	Math. 112	18	3	0	0	3		
Survey of American History.....	Hist. 101,102	36	3	0	0	6		
A Modern Language		36	3	0	0	6		
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	4	36	
THIRD CLASS								
Survey of English Literature.....	Engl. 201,202	36	3	0	0	6		
Introduction to College Physics.....	Phys. 203,204	36	3	2	0	8		
General Biology.....	Biol. 203,204	36	3	0	0	6		
Introduction to Physical Education.....	Ph. Ed. 201	18	3	0	0	3		
Psychology of Adolescence.....	Psy. 202	18	3	0	0	3		
A Modern Language		36	3	0	0	6		
2nd Year Basic R.O.T.C.....	201,202	36	3	4	4	4	36	
SECOND CLASS								
Psychology of Adolescence.....	Ed. 301	18	3	0	0	3		
Educational Tests & Measurements.....	Ed. 306	18	3	0	0	3		
Anatomy.....	Biol. 303	18	3	0	0	3		
Physiology.....	Biol. 304	18	3	0	0	3		
Health Education.....	Ph. Ed. 301	18	3	0	0	3		
Basketball.....	Ph.Ed. 303	18	1	2	2	2		
Intramural Sports.....	Ph.Ed. 306	18	0	2	2	1		
Music Appreciation.....	Art 305	18	3	0	0	3		
Art Appreciation.....	Art 306	18	3	0	0	3		
European Civilization Since 1500.....	Hist. 201,202	36	3	0	0	6		
Introduction to Sociology.....	Soc. 301	18	3	0	0	3		
1st Year Advanced R.O.T.C.....	301,302	36	4	4	4	6	39	
FIRST CLASS								
Organization and Adminis- tration of Physical Education.....	Ph.Ed. 401	18	3	0	0	3		
Football Theory.....	Ph.Ed. 402	18	2	0	0	2		
Individual Physical Education.....	Ph. Ed. 403	18	3	0	0	3		
Methods of Teaching Physical Education.....	Ph. Ed. 404	18	3	0	0	3		
Directed Teaching.....	Ed. 400	18				6		
Methods and Materials of Secondary School Teaching.....	Ed. 401	18	3	0	0	3		
American National Government.....	Polit. 201	18	3	0	0	3		
Spring Sports.....	Ph.Ed. 406	18	2	2	2	3		
Gymnastics and Tumbling.....	Ph.Ed. 408	18	1	2	2	2		
Recreation and Outdoor Education.....	Ph.Ed. 410	18	2	0	0	2		
Senior Essay.....	Ph. Ed. 420	18				2		
2nd Year Advanced Year R.O.T.C.....	401,402	36	4	4	4	6	38	

PHYSICS MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Clock Hrs. a week Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or Engl. 103,104		36	4	0		6
General Chemistry.....	Chem. 101,102	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Analytic Geometry.....	Math. 113	18	3	0	3	
German, or Drawing and	Ger. 101,102	36	3	0	6	
Descriptive Geometry.....	C.E. 101,102	36	0	4	(4)	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	31 or 33
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Elementary College Physics.....	Phys. 201,202	36	3	2	8	
The Calculus.....	Math. 201,202	36	5	0	10	
Survey of American History.....	Hist. 101,102	36	3	0	6	
Scientific German	Ger. 201,202	36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	40
SECOND CLASS						
Differential Equations.....	Math. 301,302	36	3	0	6	
Advanced General Physics.....	Phys. 301,302	36	5	0	10	
Laboratory Physics.....	Phys. 303,304	36	0	4	4	
Wave Motion, Sound and						
Geometrical Optics.....	Phys. 307	18	3	2	4	
Light.....	Phys. 308	18	3	2	4	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	40
FIRST CLASS						
Modern Physics.....	Phys. 401	18	3	0	3	
Nuclear Physics.....	Phys. 402	18	3	0	3	
Adv. Laboratory Physics.....	Phys. 403,404	36	0	2	2	
Electricity and Magnetism.....	Phys. 413	18	3	4	5	
Electronics.....	Phys. 406	18	3	4	5	
Mechanics.....	Phys. 407	18	2	0	2	
Elective.....		36	3	0	6	
Elective.....		18	3	0	3	
Senior Essay.....	Phys. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	37

POLITICAL SCIENCE MAJOR

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Clock Hrs. a week Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or Engl. 103,104		36	4	0		6
Introduction to General Chemistry.....	Chem. 103,104	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
A Modern Language.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Introduction to College Physics.....	Phys. 203,204	36	3	2	8	
European Civilization since 1500.....	Hist. 201,202	36	3	0	6	
American National Government.....	Polit. 201	18	3	0	3	
State & Local Government	Polit. 202	18	3	0	3	
A Modern Language.....		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	36
SECOND CLASS						
International Law & Organization.....	Polit. 301,302	36	3	0	6	
American Foreign Relations.....	Polit. 303	18	3	0	3	
American Parties & Politics.....	Polit. 304	18	3	0	3	
Public Administration.....	Polit. 305,306	36	3	0	6	
Econ. Foundations of Modern Life....	Polit. 307,308	36	3	0	6	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	36
FIRST CLASS						
Constitutional Law.....	Polit. 401,402	36	3	0	6	
Government Finance.....	Polit. 403	18	3	0	3	
International Politics.....	Polit. 405,406	36	3	0	6	
Political Theory.....	Polit. 407,408	36	3	0	6	
Elective.....		36	3	0	6	
Elective.....		18	3	0	3	
Senior Essay.....	Polit. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	38

PRE-DENTAL COURSE

Subject	Course No.	No. of Weeks	Clock Hrs. a week	Rec.	Lab.	Sen. Hr. Credits	Total
FOURTH CLASS							
Composition and Literature.....	Engl. 101,102	36	3	0	0	6	
or Engl. 103,104		36	4	0	0		
General Chemistry.....	Chem. 101,102	36	3	2	0	8	
College Algebra.....	Math. 111	18	3	0	0	3	
Trigonometry.....	Math. 112	18	3	0	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	0	6	
A Modern Language.....		36	3	0	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	4	36
THIRD CLASS							
Survey of English Literature.....	Engl. 201,202	36	3	0	0	6	
Elementary College Physics.....	Phys. 201,202	36	3	2	0	8	
Organic Chemistry.....	Chem. 303,304	36	3	3	0	8	
Elementary Zoology.....	Biol. 201,202	36	2	4	0	8	
A Modern Language.....		36	3	0	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	4	40

Students studying for a B.S. degree will take the courses outlined in the Pre-Medical curriculum. A grade of C or better in Chemistry 101-102 is prerequisite to admission to Chemistry 303-304 (without Chemistry 201-202).

PRE-MEDICAL COURSE

Subject	Course No.	No. of Weeks	Clock Hrs. a week Rec.	Clock Hrs. a week Lab.	Sem. Hr. Credits	Total
FOURTH CLASS						
Composition and Literature.....	Engl. 101,102	36	3	0	6	
or	Engl. 103,104	36	4	0		
General Chemistry.....	Chem. 101,102	36	3	2	8	
College Algebra.....	Math. 111	18	3	0	3	
Trigonometry.....	Math. 112	18	3	0	3	
Survey of American History.....	Hist. 101,102	36	3	0	6	
German or French.....		36	3	0	6	
1st Year Basic R.O.T.C.....	101,102	36	2	4	4	36
THIRD CLASS						
Survey of English Literature.....	Engl. 201,202	36	3	0	6	
Elementary College Physics.....	Phys. 201,202	36	3	2	8	
Qualitative Analysis.....	Chem. 201,202	36	2	3	6	
Elementary Zoology.....	Biol. 201,202	36	2	4	8	
German or French.....		36	3	0	6	
2nd Year Basic R.O.T.C.....	201,202	36	2	4	4	38
SECOND CLASS						
Comparative Anatomy.....	Biol. 301,302	36	2	4	8	
Organic Chemistry.....	Chem. 303,304	36	3	3	8	
Laboratory Physics	Phys. 305,306	36	2	2	6	
General Psychology.....	Psych. 303	18	3	0	3	
Abnormal Psychology.....	Psych. 304	18	3	0	3	
Elective.....		36	3	0	6	
1st Year Advanced R.O.T.C.....	301,302	36	4	4	6	40
FIRST CLASS						
Embryology.....	Biol. 401	18	2	4	4	
Quantitative Analysis for Pre-Meds..	Chem. 300	18	2	4	4	
Adv. Topics in Organic Chemistry.....	Chem. 403,404	36	3	0	6	
Adv. General Chemistry.....	Chem. 405	18	3	0	3	
Physical Chemistry for Pre-Meds.....	Chem. 406	18	3	0	3	
Elective.....		36	3	0	6	
Elective.....		18	3	0	3	
Senior Essay.....	Chem. 420	18			2	
2nd Year Advanced R.O.T.C.....	401,402	36	4	4	6	37

The Citadel requires all cadets to complete satisfactorily the four year course of instruction of Senior Division, Reserve Officer Training Corps. Cadets who are fully qualified and are formally enrolled in the Air Force ROTC Program may be commissioned as Second Lieutenants in the Air Force Reserve upon successful completion of the AFROTC course of instruction and receipt of a baccalaureate degree. Cadets who are not qualified for Air Force Reserve commissions may be informally enrolled in AFROTC to obtain military training required by The Citadel for graduation. Outstanding cadets designated as Distinguished AFROTC Cadets may apply for a regular Air Force Commission during their senior year.

The mission of the AFROTC is to select and prepare students, through a permanent program of instruction at civilian educational institutions, to serve as officers in the Regular or Reserve components of the United States Air Force and to assist in discharging, where necessary, any institutional obligation to offer instruction in military training.

The AFROTC course of instruction consists of two parts. The basic course consists of the first two years of Air Science and is taught in the freshman and sophomore years. The advanced course consists of the last two years of Air Science which are pursued during the junior and senior academic years. Attendance at a summer training unit at an Air Force Base for a period of four weeks is required normally between the junior and senior years.

An applicant for formal enrollment in the Basic Air Force ROTC must meet the following requirements:

Be a citizen of the United States.

Be not less than 16 and not over 21 years of age at the time of enrollment.

Be able to meet commissioning requirements prior to 28th birthday.

Be physically qualified for military service.

Be academically proficient and current in his studies, so as to be able to graduate with his contemporaries.

Possess desirable character traits with no record of conviction by civil or military courts other than for minor traffic violations.

Sign a certificate of loyalty stating that the applicant is not and has not been a member of any organization advocating a subversive or unconstitutional alteration of the government of the United States.

Formal enrollment in the advanced course is governed by the future requirements for Air Force officers. Formal enrollment is therefore limited by quotas established by the Air Force and selection is competitive.

Applicants for formal enrollment in the Advanced Air Force ROTC course must:

Have successfully completed the Basic Air Force ROTC course or have prior military service equivalent to the Basic Air Force ROTC Course.

Volunteer for flying training upon graduation if physically qualified.

Meet the physical requirements for commissioning.

Possess an aptitude for future career assignment as determined by the Air Force Officer Qualification Test. (Test to be given at the beginning of sophomore year.)

Be prepared to serve on active duty for five years if qualified for pilot or navigator training.

Be academically proficient and current in his studies so as to be able to graduate with his contemporaries.

Possess and demonstrate an exemplary code of ethics and conduct and be emotionally and temperamentally mature.

If not physically qualified for flying training the applicant must:

Be pursuing an academic course that will lead to an engineering or technical degree that meets the Air Force requirements for a technical career assignment.

Or be pursuing an academic course that will lead to a non-technical degree and be cited as outstanding in academic achievement and leadership.

Veteran students who have fulfilled their service obligation may be commissioned upon completion of the advanced course and upon completion of all academic work for a degree, provided they are medically qualified for general service and meet the Air Force requirements of aptitude and character.

Cadets who are accepted for formal enrollment in the Air Force ROTC are given Selective Service deferments if within current draft age. Such deferments remain in effect as long as formally enrolled status is maintained.

Cadets formally enrolled receive a uniform allowance of \$50.00 for each year of the Basic Course and \$100.00 for each year of the Advanced Course. A subsistence allowance of approximately \$27.00 per month is paid for the period of the advanced course.

A cadet may be admitted to the AFROTC Program with advanced standing subject to the approval of the Professor of Air Science and the institutional authorities if he furnishes satisfactory evidence of completion of portions of the course of instruction at another institution. Students who have previous basic ROTC training may transfer into the AFROTC Program with the approval of the Professor of Air Science. Transfer students are subject to the same competitive selection as other students.

Description of Course

101, 102. *First Year Basic AFROTC* Four Credit Hours

Introduction to AFROTC - 4 Hours

Elements and Potentials of Air Power - 16 Hours

Fundamentals of Air Power; Military Air Power; Military Research, Development and Procurement; Air Vehicle Industries, Airlines and Airways; General Aviation.

Air Vehicle and Principles of Flight - 10 Hours

Elements of an Aircraft; Aerodynamics and Lift; Stability, Control, Navigation and Guidance; Propulsion Systems; Space Vehicles.

Military Instruments of National Security - 15 Hours

Military Policy of the United States; Department of Defense: (1) Legislative Enactment (2) Organization and Components (3) Mission.

Professional Opportunities in the United States Air Force - 15 Hours.

Career Opportunities; Pay and Allowances; Personal Benefits; Educational Opportunities; Intangible Benefits.

Leadership Training Laboratory - 120 Hours

This instruction continues throughout the entire year and includes wearing of the uniform, military courtesy, elements of mass drills and emphasis on leadership qualities.

201, 202. *Second Year Basic Course* Four Credit Hours

Careers in the United States Air Force - 6 Hours

Purpose and operation of the USAF officer career program.

Moral Responsibility of Air Force Leaders - 1 Hour

Elements of Aerial Warfare - 52 Hours

Military targets, definitions and types; weapons, including atomic, biological, rocket propelled and psychological; delivery aircraft, including design and type; air ocean, significance of air as a medium for delivery; bases, types, location, size, and construction; forces, Air Force combat and support organization.

Leadership Training Laboratory - 120 Hours

Entire school year; continue subjects covered in AS II; stresses non-commissioned officer training; gives experience in leading small cadet units.

301, 302. *First Year Advanced Course* Six Credit Hours

Introduction to Advanced AFROTC - 2 Hours

The Air Force Commander and His Staff - 8 Hours

Covers responsibilities and functions of the Air Force Commander; organization of staff and principles of completed staff work.

Creative Problem Solving - 20 Hours

Laws of learning; nature of thinking; methods of problem solving.

Communicating in the Air Force - 25 Hours

Nature of communication processes; communication media, with emphasis on military correspondence; general semantics.

Instructing in the Air Force - 10 Hours

Suggested techniques in the preparation and presentation of instructional material; methods and systems employed; scoring and grading.

Military Justice System - 15 Hours

Types of Courts Martial, crimes and offenses, and board procedures.

Air Navigation - 15 Hours

Map projections, dead reckoning, radio, and celestial navigation.

Weather - 15 Hours

Courses of weather phenomena, weather maps, and weather flying.

Air Force Base Functions - 5 Hours

The typical air base organization, its function and the functions of the various base staff officers.

Briefing for Summer Training - 5 Hours

Includes orientation of training program conducted on an Air Force Base and living in a military environment.

*Leadership Training Laboratory - 120 Hours**Career Guidance - 4 Hours*

Review of qualifications for Regular and Reserve commissions in the years, plus leadership activities for cadet squad, company, and battalion.

Summer Training: Normally all formally enrolled AFROTC cadets upon completion of Air Science III are required to attend Summer Training at an Air Force Base. This course is made up of four weeks of intensive training and indoctrination into the Air Force. Training is carried out through observation and participation rather than through formalized instruction. Major areas of instruction are:

Aircraft and Air Crew Indoctrination	58 Hours
Military Fundamentals	56 Hours
Physical Training	20 Hours
Organization and Functions of Air Force Bases	12 Hours
Weapons and Marksmanship	9 Hours

401, 402. Second Year Advanced Course Six Credit Hours
 Scheduled through entire year; continues training of preceding two USAF; career fields; specialized training opportunities.

*Moral Responsibility of Air Force Leaders - 1 Hour**Leadership and Management Seminar - 40 Hours*

Leadership concepts and responsibilities; functions and leadership at various echelons of command; management and human relation aspects of leadership.

Military Aviation and the Evolution of War - 15 Hours

Principles of war, historical survey of basic land, naval, and air warfare; modern warfare, with emphasis on military aviation.

Military Aspects of World Political Geography - 45 Hours

Framework of international politics; anatomy of political power; geographical basis of power; world military and political factors of geography; world powers and strategic areas; world security problems in relation to international power clashes.

Briefing for Commissioned Service - 10 Hours

How to prepare and report for first assignment; attitude and activities of primary concern to a newly commissioned officer; the long range reserve plan.

Professor of Air Science Briefing - 5 Hours

Devoted to additional training which the Professor of Air Science considers essential to prepare cadets to become polished Air Force officers.

Leadership Training Laboratory - 120 Hours

Continuation of military training offered in the first three years; instruction of subordinates; planning and supervising drill and other Cadet Corps activities.

DEPARTMENT OF BUSINESS ADMINISTRATION

Modern business has become so large in the size of industrial units and so complex in organization that a mastery of its theory and practice can no longer be acquired through apprenticeship. Today no single industry or business can give so adequate a training to its beginners as can be obtained in the department of business administration of a good college. Such college training is now considered the best method of equipping a man for success as a business and economic leader.

The purpose of the Department of Business Administration is to prepare the student to take his place in a business enterprise with such general knowledge of business that he can forego many of the years of experience which would be required of an apprentice, to prepare

him to enter in full standing the graduate schools of business administration, to pursue further professional business studies, and to take his place in economic society as does a professional man in other fields of endeavor with sufficient knowledge to make sound decisions on economic problems.

The courses described below are not all pure business courses; rather they are designed to offer instruction in subjects commonly given in schools of arts and science, in schools of social science, and in schools of business administration.

201. <i>Economic Origins and Principles</i>	Three Credit Hours
Required of all Business Administration Sophomores.	
A study of the origins of capitalism and the development of economic institutions; an introduction to economic principles, including an analysis of supply and demand and of the pricing process under various forms of competition.	
202. <i>Economic Principles and Problems</i>	Three Credit Hours
Required of all Business Administration Sophomores.	
A study of income distribution, money and banking, government finance, international economic relations; the problems of labor, agriculture, transportation, large-scale productions, and other contemporary economic problems.	
Prerequisite: B. Ad. 201.	
203. <i>Raw Material Wealth</i>	Three Credit Hours
Required of all Business Administration Sophomores.	
A study of how wealth comes into existence from raw materials; the location, the quantity, the quality, the values before and after manufacturing; manufacturing processes; relative importance to economic society.	
204. <i>Business Psychology</i>	Three Credit Hours
Required of all Business Administration Sophomores.	
Applied psychology as an aid to the business executive; statistical measures as an aid to the psychologist; vocational psychology; hiring and promotion of the employee; the psychological factor in the business cycle; the psychology of granting credit, selling, advertising, and market research.	
303. <i>Accounting Principles and Practices</i>	Three Credit Hours
Required of Business Administration Juniors.	
A study of the fundamentals of accounting, including the analysis and recording of business transactions and the preparation of financial statements for individuals, partnerships, and corporations; practical problems given in the laboratory. Lecture: two hours; laboratory: two hours.	

304. *Advanced Accounting Theory and Practice.* Three Credit Hours
Required of all Business Administration Juniors.

An analysis of the balance sheet and the profit and loss statement with particular emphasis in the technique of evaluation of items comprising these statements; practical problems given in the laboratory. Lecture: two hours; laboratory: two hours.

Prerequisite: B. Ad. 303.

305. *Business Law* Three Credit Hours

Required of all Business Administration Juniors.

A discussion of the law which relates to the business man: contracts, agency, negotiable instruments, business association, sales, bailments, security relations, real property, and the like; discussion of court decisions in actual cases to supplement the class work.

Prerequisite: B. Ad. 202.

306. *Business Organization* Three Credit Hours

Required of all Business Administration Juniors.

The legal relations of a business unit; kind of organization best adapted to various sorts of business activity; internal organization for maximum efficiency; the legal nature of mortgages, bonds, stocks; a study of combinations as administrative units.

Prerequisites: B. Ad. 303 and 305.

307. *Principles of Labor* Three Credit Hours

Required of all Business Administration Juniors.

An analysis of the worker's position in modern industry and the effects of industrial production on the worker's social position; introduction to the problems of wages, hours, working conditions, child labor, industrial accidents, unemployment, trade unions, and collective bargaining; economic problems of the worker under current labor legislation.

Prerequisite: B. Ad. 202.

308. *General Insurance* Three Credit Hours

Required of all Business Administration Juniors.

A course in predictable business risks and the methods of minimizing these risks through insurance; intelligent planning of a program of insurance for personal needs and business responsibilities; contract forms, coverages, and rates of life, fire, casualty, marine insurance, and fidelity and surety bonds.

309. *Marketing* Three Credit Hours

Required of all Business Administration Juniors.

The business activities necessary to effect the physical distribution of goods from the producer of the raw materials to the consumer; the marketing institutions; a study of the marketing functions and some

marketing problems such as price policies and price maintenance, brands, marketing costs and efficiency.

Prerequisites: B. Ad. 202 and 203.

310. *Foreign Trade* Three Credit Hours

Required of all Business Administration Juniors.

The channels of distribution used in exporting and importing; the theory of international trade, foreign trade promotion activities; the commercial organization and policies governing foreign trade practices; trade methods and problems; financial arrangements.

Prerequisite: B. Ad. 309.

311. *Government Finance* Three Credit Hours

Required of all Business Administration Juniors.

A study from the point of view of the businessman of the amount and purposes of governmental expenditures; scope of government financial activity; public budgets; principles of public borrowing; sources of revenue; theories of tax distribution; general principles and practices of the property tax, commodity taxes, corporation, and other business taxes.

Prerequisite: B. Ad. 202.

312. *Taxation* Three Credit Hours

Required of all Business Administration Juniors.

A study of the basic principles of income taxation, including a thorough analysis of the present federal law dealing both with persons and corporations; a survey of social security taxes, death taxes, and gift taxes.

Prerequisite: B. Ad. 311.

401. *Industrial Accounting* Three Credit Hours

Required of all Business Administration Seniors.

An elementary course in the principles of industrial accounting, including the accounting for materials, labor, and overhead under the job-order, process, and standard cost systems; practical problems given in the laboratory. Lecture: two hours; laboratory: two hours.

Prerequisite: B. Ad. 304.

402. *Advanced Accounting Problems* Three Credit Hours

Required of all Business Administration Seniors.

A study of advanced accounting problems, including the technical procedures in the organization and liquidation of partnerships; special problems in mergers and consolidations, estates, trusts, and receiverships; practice problems done in the laboratory. Lecture: two hours; laboratory: two hours.

Prerequisite: B. Ad. 401.

403. *Corporation Finance* Three Credit Hours

Required of all Business Administration Seniors.

The manager's problem in securing, disposing of, conserving and using the finances of his business; the legal and practical uses of bond, stock, circulating capital; development of policies regarding dividends, surplus, income, expenses, and capitalization in relation to the size of the business unit and type of integration.

Prerequisite: B. Ad. 304 and 306.

404. *Investments* Three Credit Hours

Required of all Business Administration Seniors.

Analysis of government, state, municipal, public utility, railroad, and industrial securities; discussion of the tendency to regard stocks as investments; the tests of a good investment applied to securities to give the untrained person an awareness of the nature of his investments and the protection available to him.

Prerequisite: B. Ad. 304 and 403.

405. *Sales Administration* Three Credit Hours

Required of all Business Administration Seniors.

The sales problems of retailers, wholesalers, and manufacturing concerns; merchandising policy and research; functions of the various departments connected with sales activities such as credit, traffic, and advertising; selection and training of salesmen; operation of sales branches; sales promotion as dealing with selling methods, advertising, and the planning of sales campaigns.

Prerequisite: B. Ad. 310.

406. *Transportation* Three Credit Hours

Required of all Business Administration Seniors.

A study of the services rendered in the movement of goods by all forms of transportation; rate making; discrimination; competition; co-operation; administration; terminals; and the general effects of these problems on carriers, shippers, and the public.

Prerequisite: B. Ad. 202 and advisedly 405.

407. *Money* Three Credit Hours

Required of all Business Administration Seniors.

The nature and functions of money; the various monetary standards; the development of our monetary system; the factors affecting the value of money; methods and objectives of money and credit control; international exchange; analysis of recent developments in money and credit.

Prerequisite: B. Ad. 202.

408. *Banking* Three Credit Hours

Required of all Business Administration Seniors.

A study of the functions, management and operation of commercial banks; the development of banking in the United States; the policies of the Federal Reserve Banks as they relate to the volume of physical pro-

duction, the national income, and the price level; the relation between commercial banks and investment institutions; organization, operation, and economic effects of the Federal Reserve System; effects of recent changes in banking.

Prerequisite: B. Ad. 407.

409. Personnel Management Three Credit Hours

Required of all Business Administration Seniors.

The principles and practices in the management of employees, introducing positive stimuli into industrial endeavors and promoting the industrial efficiency of labor, treating such factors as selection and placement, training, job analysis, promotion, turnover, health, morale building, and recreation.

Prerequisite: B. Ad. 307.

410. Production Three Credit Hours

Required of Business Administration Seniors.

The problems of the production manager; location and design of plants; internal and external transportation; inventory control; methods of measuring activities of personnel; incentives, efficiencies, budgets, and organization.

Prerequisites: B. Ad. 202, 203 and advisedly 401.

420. Senior Essay Two Credit Hours

Required of all seniors as a prerequisite to graduation. See page 62.

DEPARTMENT OF CHEMISTRY

The objectives of this department are to offer to all freshmen majoring in the sciences or engineering a course in the fundamentals of general chemistry and to freshmen majoring in the arts a course in the introduction to general chemistry, to provide (for students majoring in chemistry) a course of study which will meet the educational requirements of the American Chemical Society for the professional chemist, to afford to pre-medical students adequate preparation for admission to standard medical colleges, and to provide a two-year course for students preparing for the study of dentistry.

Chemistry Major

The courses of study for students majoring in chemistry are designed to prepare them to fill positions as chemists in commercial laboratories or as control chemists in industrial plants, and to provide the basic training for them to enroll as graduate students in full standing at the leading universities.

The courses of study embody training in the four fundamental sub-

divisions of the science: inorganic, organic, analytical, and physical chemistry.

The department occupies nine commodious laboratories, ten lecture rooms, and one large lecture and demonstration room, all located in the west wing of Bond Hall. The large lecture and demonstration room is equipped with a demonstration desk, the most modern audio-visual aid equipment, an exhaust fan for adequate ventilation, and seats arranged in curved tiers for better vision. The laboratories are equipped with modern apparatus, and all of them are lighted with fluorescent lighting. Supplies are maintained at an adequate level.

The department maintains a centrally-located library with well selected reference books and scientific journals. A complete series of the journals of the American Chemical Society may be found on the shelves of the reading room. Current periodicals and scientific magazines are kept up to date on the reading room tables.

A Chapter of Student Affiliates of the American Chemical Society has been organized at The Citadel.

Students majoring in chemistry are required to take all of the courses offered by the department for Chemistry Majors and also Mathematics 111, 112, 113, and 201, 202; German 101, 102 and 201, 202; and Physics 201, 202.

Pre-Medical Major

The sequence of courses offered to students majoring in pre-medicine is based upon the requirements of the Association of American Medical Colleges for admission to a standard medical college. A student must not only complete certain prescribed work for admission to a medical college but must show also an aptitude for medical studies. The Medical Aptitude Test, prepared by the Association of American Medical Colleges, is given at The Citadel each year to all students who expect to apply for admission to a medical college.

Students taking the Pre-Medical Elective course are required to take Chemistry 101, 102, 201, 202, 300, 303, 304, 403, 404, and 405, 406; Mathematics 111, 112; Physics 201, 202 and 305, 306; German or French 101, 102 and 201, 202; Psychology 303, 304; and Biology 201, 202, 301, 302, and 401. Biology 402 is a recommended elective.

Pre-Dental Major

Students who desire to prepare themselves for the study of dentistry are offered a two-year pre-dental course which meets the minimum requirements of the American Association of Dental Colleges for admission to a standard school of dentistry. If the student decides to continue his college training for the Bachelor of Science degree, this

curriculum will constitute the first two years of his college work. The courses taken during the last two years must be the same as those required by The Citadel for the Bachelor of Science degree in pre-medicine. Students who complete the two-year pre-dental course are qualified for admission to a school for veterinarians or to a school of pharmacy.

Students taking the Pre-Dental Elective course are required to take Chemistry 101, 102 and 303, 304; Mathematics 111, 112; Physics 201, 202; German, French, or Spanish 101, 102 and 201, 202; English 101, 102 and 201, 202; and Biology 201, 202.

101, 102. *General Chemistry* Eight Credit Hours
Required of all freshmen majoring in the sciences, engineering, or mathematics.

Theoretical and descriptive chemistry, including the elements of modern chemical theory and discussion of some of the more common industrial processes. Lectures and recitations: three hours a week; laboratory: two hours a week.

103, 104. *Introduction to General Chemistry* Eight Credit Hours
Required of all freshmen majoring in the arts courses.

A course designed for students majoring in the arts courses who do not expect to take any other course in chemistry; the fundamental principles of chemistry as drawn from the experiences of daily life considered; less comprehensive than Chemistry 101, 102. Lectures and recitations: three hours a week; laboratory: two hours a week.

201, 202. *Qualitative Analysis* Six Credit Hours
Required of all sophomores majoring in chemistry or pre-medicine; elective to others.

The separation and identification of the common cations and anions, with emphasis on the theory involved. Lectures: two hours a week; laboratory: three hours a week.

Prerequisites: Chemistry 101, 102.

300. *Quantitative Analysis for Pre-Medical Students* Four Credit Hours

Required of all seniors majoring in pre-medicine.

A survey covering the essentials of volumetric analysis needed in medical college. Lectures: two hours a week; laboratory: four hours a week. Prerequisites: Chemistry 101, 102 and 201, 202.

301, 302. *Quantitative Analysis: Volumetric and Gravimetric* Eight Credit Hours

Required of all juniors majoring in chemistry. Elective to others.

A more rigorous course in the theory and practice of quantitative

analysis. Lectures: two hours a week; laboratory: four hours a week.
Prerequisites: Chemistry 101, 102 and 201, 202.

Required of all juniors majoring in chemistry or pre-medicine; may be taken by students majoring in pre-dentistry in the sophomore year. The aliphatics and aromatic series and heterocyclic compounds; class-room discussions, lectures, and laboratory training in general reactions and synthetic methods. Lecture: three hours a week; laboratory: three hours a week.

Prerequisites: Chemistry 101, 102 and 201, 202 for students majoring in chemistry or pre-medicine and Chemistry 101, 102 with a grade of C or better for students majoring in pre-dentistry.

305, 306. *Inorganic Chemistry* Six Credit Hours

Required of all juniors majoring in chemistry; elective to others. A study of the principles of inorganic chemistry; atomic theory, valence, chemical bonds, the periodic system, acid-base theories, complex ions, radioactivity and nuclear relationships. Lectures: Three hours a week. Prerequisites: Chemistry 101, 102.

401, 402. *Physical Chemistry* **Eight Credit Hours**

Required of all seniors majoring in chemistry; elective to others. A study of the properties of solids, liquids, and gases, and of their relation to chemical constitution. Lecture: three hours a week; laboratory: three hours a week.

Prerequisites: Chemistry 301, 302 and Mathematics 201, 202.

403, 404. *Advanced Topics in Organic Chemistry* Six Credit Hours

Required of all seniors majoring in chemistry or pre-medicine. A course designed to familiarize students with the survey of complicated molecules and their reactions thus contributing to their facility for undertaking the study of bio-chemistry and other complicated fields of organic chemistry. Lecture and recitations: three hours a week. Prerequisites: Chemistry 303, 304.

405. Advanced General Chemistry Three Credit Hours

Required of all seniors majoring in pre-medicine; elective to others. A comprehensive review of general chemistry with special emphasis on equilibria, the periodic law, and the relation of chemical behavior to atomic structure. Lecture: three hours a week.

Prerequisites: Chemistry 101, 102 and 201, 202.

406. *Physical Chemistry for Pre-Medical Students* Three Credit Hours

Required of all seniors majoring in pre-medicine.

A course designed to permit students majoring in pre-medicine and lacking mathematical training to survey the general method of investigation of physical chemistry in *quasi*-mathematical forms. Lecture: three hours a week.

Prerequisites: Chemistry 101, 102 and 201, 202; and Physics 201, 202.

407. Advanced Quantitative Analysis Four Credit Hours

Required of all seniors majoring in chemistry; elective to others. Analysis of metals and alloys, iron ores, water analysis and boiler water control, fuels and fertilizer, and the application of modern instruments to the analysis of industrial materials. Lecture: two hours a week; laboratory: four hours a week.

Prerequisites: Chemistry 301, 302.

408. Qualitative Organic Analysis Four Credit Hours

Required of all seniors majoring in chemistry; elective to others. The classification, the study of type reactions, and the identification of pure organic compounds and mixtures of organic compounds. Lecture: two hours a week; laboratory: four hours a week.

Prerequisites: Chemistry 303, 304.

409. Organic Preparations Three Credit Hours

Required of all seniors majoring in chemistry.

Advanced organic syntheses and technique with emphasis on purity and yield of products. Lecture: one hour a week; laboratory: four hours a week.

Prerequisites: Chemistry 303, 304.

Biology and Geology

No attempt is made at The Citadel to maintain separate departments in these two subjects. The courses are under the supervision of the Department of Chemistry.

The courses in biology offered to students majoring in pre-medicine meet the requirements of the more exacting medical colleges. However, since biology and geology have made a great contribution to modern philosophy, a knowledge of at least their elemental aspects is a distinct contribution to the general culture of the students. Accordingly, Biology 201, 202, 203, 204, and Geology 301, 302 are made available for election to all juniors and seniors. Geology 303 is limited to students majoring in civil engineering.

201, 202. Elementary Zoology Eight Credit Hours

Required of all sophomores majoring in pre-medicine or pre-dentistry; elective to others.

The various classes of animal organisms from the standpoint of anatomy, physiology, phylogeny, and ecology; occasional lectures given on some of the broader aspects of the subject such as heredity, cycle of the

germ-cell, pathogenic organisms. Lecture: two hours a week; laboratory: four hours a week.

203, 204. *General Biology* Six Credit Hours

Required of all students electing the Teacher Training Program and those majoring in physical education; elective to others except students majoring in pre-medicine or pre-dentistry.

The more important principles of biology including taxonomy, physiology, inheritance, variation, and organic development; application of biological principles to human problems emphasized. Lecture: three hours a week.

301, 302. *Comparative Vertebrate Anatomy* Eight Credit Hours

Required of all seniors majoring in pre-medicine.

Comparative anatomy of vertebrate forms. Lecture: two hours a week; laboratory: four hours a week.

Prerequisites: Biology 201, 202.

303. *Human Biology: Anatomy* Three Credit Hours

Required of juniors majoring in physical education.

The structure of the body considered, with special emphasis upon the skin, musculature, and the skeleton. Lecture: three hours a week.

Prerequisites: Biology 203, 204.

304. *Human Biology: Physiology* Three Credit Hours

Required of juniors majoring in physical education.

A consideration of human physiology from a practical point of view, the processes of digestion, assimilation, elimination, circulation, respiration, excretion, and reproduction considered. Lecture: three hours a week.

Prerequisites: Biology 203, 204.

401. *Embryology* Four Credit Hours

Required of all seniors majoring in pre-medicine.

Embryology of representative vertebrates, including the amphibian and bird, with additional material on mammals. Lecture: two hours a week; laboratory: four hours a week.

Prerequisite: Biology 301, 302.

402. *Descriptive Histology* Three Credit Hours

Elective to all seniors majoring in pre-medicine or pre-dentistry.

Histology of mammalian tissue with descriptive function of each; practical work in the identification of vertebrate tissue and occasional lectures on microscopic technique. Lecture: two hours a week; laboratory: two hours a week.

Prerequisite: Biology 301, 302.

301, 302. *Elementary Geology* Eight Credit Hours

Elective to all juniors and seniors.

The various processes, such as crust movements, igneous influences, weathering, erosion, denudation, and transportation which have been instrumental in shaping the earth; the composition, structure, and arrangement of igneous and sedimentary rocks; and a survey of the historical aspects. Lecture: three hours a week; laboratory: two hours a week.

303. *Engineering Geology* Four Credit Hours

Required of and limited to juniors majoring in Civil Engineering. The origin and occurrence of the three major groups of rocks, their composition, resistance to weathering, and employment in engineering construction; the various processes of dynamic geology considered with special reference to their application to engineering practice. Lecture: three hours a week; laboratory: two hours a week.

420. *Senior Essay* Two Credit Hours

Required of all seniors as a prerequisite to graduation. See page 62.

DEPARTMENT OF CIVIL ENGINEERING

The objective of this department is to give a course that will meet the basic educational requirements of the profession of civil engineering. This objective is sought through a co-ordinated program of liberal, scientific, and technological courses designed to broaden and enrich the student's general education as well as to lay the foundation for technical competence. A four-year undergraduate program does not provide time for more than a few of the most essential liberal courses; hence, with the exception of English, history, a junior elective, and the sciences, students of engineering must depend upon the liberal value of the technical and professional courses to achieve a reasonably well-rounded general education. Such liberal value as may be developed in these courses will depend to a great extent upon the skill with which instructors use them to awaken a catholicity of interest and social consciousness in the students.

The program in the freshman class does not differ essentially from liberal programs in most undergraduate courses. In the sophomore class, limited specialization begins with the introduction of courses in surveying, analytic mechanics, and graphic statics. In the junior and senior years the time is devoted to basic professional courses. Throughout the four years the program is taught with the primary emphasis upon inculcating habits of orderly study, investigation, and sound reasoning rather than upon the mere acquisition of factual information. Constant attention, too, is given to engineering procedure in its wider sense, that is, the characteristic methods by which engineers conceive, design, and construct engineering projects.

Such a curriculum, ably taught, should prepare the better students to develop a mastery of such special fields as their subsequent employment may lead to, or to pursue more advanced work in the graduate schools of engineering. In general educational value, if properly adapted to the student's interests and aptitudes, it should meet the educational demands of good citizenship in whatever field the graduate enters.

The new concept of the engineer is that of a professional man thoroughly grounded in technology but also alive to the social and economic implications of his professional activities. It appears to be clearly the duty of engineering schools to fashion their graduates in this mold in so far as time limitations will permit.

The civil engineering curriculum is accredited by the Engineers' Council for Professional Development.

There is a successful student chapter of the American Society of Civil Engineers.

DEGREE: The degree of Bachelor of Science in Civil Engineering (B.S. in C.E.) is awarded to those who successfully complete the program of studies on page 67.

BUILDINGS: The department is housed in its own buildings on the north of the campus. The main building was designed specifically for the needs of civil engineering instruction, and it contains the necessary laboratories, drafting rooms, classrooms, and other rooms needed to carry on the work of the department. The auxiliary building houses a portion of the soils laboratory. In addition this department has classrooms and a drafting room in the Physical Education Building.

JOHN ANDERSON MEMORIAL LIBRARY: The department maintains a small but well selected and arranged library that is open to students at all hours. Current copies and files of leading engineering magazines are available in the reading room.

EQUIPMENT: Well equipped laboratories are maintained for work in cement and concrete, bituminous materials, soils, hydraulics, and structural materials. For the work in cement and concrete a curing room with temperature and humidity controls and another room for steam curing are available.

In the concrete laboratory there is an adequate supply of equipment for every student to prepare his individual test specimens. The equipment includes a large supply of molds, platform scales, mixing tables, a two-cubic foot concrete mixer, concrete block machine, air entrainment apparatus, and the usual minor articles.

In the materials testing laboratory the main items of equipment are a 400,000 pound Baldwin-Southwark universal hydraulic testing machine with a clearance of ten feet for column testing and a 36-inch wide

working table; a 150,000 pound Olsen screw-power universal testing machine; a Rockwell hardness testing machine; a Sonntag fatigue machine; Brinell, cold bend, shearing, and transverse testing attachments, three spherically seated bearing blocks, and a variety of specimen grips for tensile testing; S R-4, Berry, Whittemore, and G. F. Moore strain gauges; compressometers, deflectometers, and other instruments for measuring deformation; machined bearing blocks and I-beam with adjustable supports for transverse tests. This laboratory is equipped with an overhead crane for handling heavy specimens in any part of the room.

In the bituminous materials testing laboratory there is adequate equipment for making routine tests of asphalt cements, cut-back asphalts and emulsified asphalts as well as tests of road tars. The equipment includes a Saybolt-Furol Viscosimeter, an Engler Viscosimeter, distillation apparatus, a penetrometer, a Cleveland Open-cup flask point apparatus, ring and ball softening point apparatus, a Rotorex extraction machine and float test apparatus. Supplemental equipment includes ample glassware, thermostatically controlled electric ovens, constant temperature water bath, a cold water circulating apparatus and cleaning tank with special solvent for quick and easy cleaning of equipment.

The soils laboratories are equipped with both scale and dead-weight consolidometers, triaxial and direct shear machines; unconfined compression machine; permeameters; Atterberg limit equipment; Proctor and modified A.A.S.H.O. compaction apparatus; standard sieves and soil hydrometers; C.B.R. apparatus; and other equipment needed for tests and experiments with soils.

The hydraulics laboratory is equipped for a variety of experiments in the flow of water through pipes and orifices and over weirs. Water is supplied by a 500 gpm centrifugal pump to a constant head tank, from which is distributed to the various test units and returned through floor channels to the pump intake. Equipment includes Venturi meter, orifices, weirs, pipe ranges, differential gauges, hook gauges, weighing tanks and scales.

Adequate equipment is available for the courses in surveying. This includes fourteen transits, nine levels, four plane tables, two sextants, aneroid barometer, several compasses, standardized tapes, and a complete supply of level rods, tapes, and pins. For photogrammetric work there is a rectoplanograph, stereocomparagraph, stereoscopic radial plotter, extended eye base stereoscope, parallax bar, "Lazy Daisy" mechanical triangulation set, forty pocket stereoscopes, thirty-nine height finders and about five hundred aerial photographs of various sections of the United States including a complete stereoscopic coverage of Charleston County, South Carolina. This equipment is used in both the surveying and the photogrammetry courses.

All drafting rooms and the library are equipped with fluorescent

lighting. Two of the larger classrooms and one drafting room may be darkened at any time to show motion pictures, for which a sound projector is available. The drawing rooms are furnished with tables, and there are available drafting machines, parallel rules, planimeters and necessary minor items. A printing room is equipped with an Ozalid dry printing machine.

A computation room in the center of the building, open to students at all times, is equipped with Monroe calculating machines. This facility has done much to expedite numerical calculations and thus saves much of the students' time.

The elective in the Junior year must have the approval of the Department of Civil Engineering. Also the requirements of the department offering the elective must be met.

101, 102. *Drawing and Descriptive Geometry* Four Credit Hours
Required of all Civil and Electrical Engineering Freshmen.

Use and care of drawing instruments; proper weights and types of lines for clear, clean-cut, and complete graphical representation; useful geometrical construction; freehand sketching; orthographic projection; auxiliary, revolved, and sectional views; pictorial representation with emphasis on isometric drawing; dimensioning; true lengths and shapes; intersections and developments; problems on points, lines, and planes to be solved by the method of auxiliary planes in third angle projection. Problems selected with a view to emphasizing the practical applications and developing the ability of the student to think in three dimensions. Development of reasonable skill in lettering a requirement for credit in this course. Laboratory: four hours.

201. *Engineering Drawing* Two Credit Hours
Required of all Civil and Electrical Engineering Sophomores.

Machine drawing; methods of representing fastenings, springs, and other machine parts; detail and assembly drawings of simple machines with special attention to theory of dimensioning, and checking; topographical drawing; contour mapping; solution of problems by use of contour maps; profiles and cross-sections; use of planimeter in area and earthwork computations; use of Geological Survey maps for preliminary studies of engineering projects. Laboratory: four hours.

Prerequisites: C.E. 101, 102.

202. *Analytic Mechanics and Graphic Statics* Three Credit Hours
Required of all Civil Engineering Sophomores.

Analytic and graphic solution of problems in statics; principles of statics; resultants, reactions, and equilibrium of forces; analysis of simple beams and trusses; force systems in space; the laboratory period to be used for graphical solutions. Lecture: two hours; laboratory: two hours. Prerequisites: C.E. 201; Phys. 201; Eligible for Math. 201.

204. <i>Photogrammetry</i>	One Credit Hour
Required of all Civil Engineering Sophomores.	
An elementary course in aerial photography and topographic mapping; methods of topographic projection; planning topographic flights; basic photo-interpretation; geometric properties of photographs; radial line plotting; photographic measurements. Laboratory: two hours.	
Prerequisites: C.E. 205; C.E. 201. Concurrent with Surveying 206.	
205, 206. <i>Surveying</i>	Eight Credit Hours
Required of all Civil and Electrical Engineering Sophomores.	
Linear measurements; leveling; compass and transit; slide rule and calculating machines; theory of errors; land surveying; boundary laws; latitudes and departures; areas and volumes; stadia; plane table; route surveys; vertical, circular and transition curves; state plane coordinates. Required student equipment: "loglog" duplex slide rule. Lecture: three hours; field: two hours.	
Prerequisites: Eligible for Math. 201.	
301. <i>Analytic Mechanics</i>	Four Credit Hours
Required of all Civil Engineering Juniors.	
Statics and dynamics; friction; force systems in space; centroids and centers of gravity; moment of inertia; kinematics and kinetics. Lecture: four hours.	
Prerequisites: C.E. 202; Math. 201; Phys. 201.	
303, 304. <i>Mechanics of Materials</i>	Six Credit Hours
Required of all Civil Engineering Juniors.	
Elastic properties of structural materials: internal stresses and strains in beams, columns, shafts, riveted and welded joints; combined stresses; deflections; principal stresses; unsymmetrical bending. Supplemented by Materials Laboratory C.E. 307, to be taken either before or concurrently with C.E. 303. Lecture: three hours.	
Prerequisites: For C.E. 303 - Math. 201; Physics 201; C.E. 202. For C.E. 304 - Math. 202; C.E. 303.	
305. <i>Highway Engineering</i>	Three Credit Hours
Required of all Civil Engineering Juniors.	
Highway economics; planning and financing; legislation and administration; location and geometric design; basic principles of traffic surveys; basic highway soils engineering; drainage; grading. Lecture three hours.	
Prerequisites: C.E. 205-206. C.E. 301 must have been completed or taken concurrently with C.E. 305.	
306. <i>Highway Engineering..</i>	Three Credit Hours
Required of all Civil Engineering Juniors.	
Alignment and earthwork drawings and computations; routine tests of highway materials, bituminous and non-bituminous; pavement and base	

thickness design; construction of roadway elements; construction surveys; contracts and specifications. Lecture: two hours; laboratory: two hours.

Prerequisite: C.E. 305.

307. Materials Laboratory Two Credit Hours

Required of all Civil Engineering Juniors.

Laboratory supplement to Mechanics of Materials C.E. 303. Introduction to the use of testing machines and equipment; strength and deformation measurements of ferrous metals and concrete; properties of materials as determined by test results; compression, tensile and bending specimen tests; use of SR-4 electric strain gauge; use of ASTM Specifications and Test Procedure. Laboratory: four hours.

Prerequisites: C.E. 202; Math. 201.

308. Stress Analysis Three Credit Hours

Required of all Civil Engineering Juniors.

Analytic solution of simple structures: reactions, shears and moments for fixed and moving loads on beams and trusses; stresses in various types of statically determinate framed structures; influence line diagrams; standard loadings for highway and railway bridges; shop drawings. Lecture: two hours; laboratory: two hours.

Prerequisites: C.E. 301; C.E. 303; Math. 202.

310. Engineering Law and Specifications Three Credit Hours

Required of all Civil Engineering Juniors.

An elementary course in law in relation to engineering practice, beginning with a brief study of the Constitution of the United States; contracts, agency, real and personal property, sales, mechanic's liens, workman's compensation laws; construction contract documents; advertising and awarding contracts; writing and interpretation of standard specifications. Lecture: three hours.

Prerequisite: Completion of all work of Sophomore Year.

401. Concrete Laboratory Two Credit Hours

Required of all Civil Engineering Seniors.

Design, preparation and testing of portland cement concrete mixes for a desired quality of concrete using both plain portland cement concrete and concretes containing the various commonly used admixtures; test specimens cured under controlled temperature and moisture conditions; close attention given to the influence of the quality and grading of the aggregates and to other features affecting the properties of the concrete ultimately forming a structure; the fundamentals of making concrete masonry building units studied by making blocks from various "damp" mixes in a vibrating type block machine. Lecture: one hour; laboratory: two hours.

Prerequisite: C.E. 307.

402. *Soil Mechanics Laboratory* Two Credit Hours

Required of all Civil Engineering Seniors.

Classification, control, and soil strength tests to predict suitability of soil for use in earth dams, roads, and foundations; to include specific gravity, combined mechanical analysis, Atterberg limits, permeability, compaction, unconfined compression, consolidation, triaxial, direct shear, and C.B.R. tests; field tests to consist of field density tests, soil borings, and load tests. Lecture: one hour; laboratory: two hours.

Prerequisites: C.E. 409; C.E. 401; C.E. 410 to be taken concurrently.

403, 404. *Reinforced Concrete Design* Six Credit Hours

Required of all Civil Engineering Seniors.

Theory and design of reinforced concrete structures; slabs; beams; footings; retaining walls; columns; combined stress members; design of selected portions of concrete buildings and bridges with special attention to current specifications for design and construction. Lecture: three hours.

Prerequisites: C.E. 303, 304; C.E. 308.

405, 406. *Steel Structures, Theory and Design* Eight Credit Hours

Required of all Civil Engineering Seniors.

Theory of statically indeterminate structures, using methods of work, slope deflection, moment distribution; analysis of multistoried steel frame building; theory and design of tension and compression members, beams, plate girders; analysis of railway bridge; analysis and design of railway and highway bridge trusses; analysis, design and structural drawing of steel mill building.

Prerequisites: C.E. 303, 304; C.E. 308.

407. *Hydraulics* Four Credit Hours

Required of all Civil Engineering Seniors.

Liquid properties; hydrostatics; Bernoulli theorem and its applications in Venturi meter orifices, weirs, pipes, and open channels; the laboratory period used for experimental demonstration of the theory and for supervised computation work. Lecture: three hours; laboratory: two hours.

Prerequisites: C.E. 301.

408. *Water Supply and Sewerage* Three Credit Hours

Required of all Civil Engineering Seniors.

Relationship of water supply and sewage disposal to public health; consumption of water; quality standard; collection, treatment, and distribution of water; sewers and sewerage; quantity and characteristics of sewage; methods of treatment and disposal of sewage. Lecture three hours.

Prerequisite: Completion of all work of the junior year.

409, 410. *Soil Mechanics and Foundations* Six Credit Hours

Required of all Civil Engineering Seniors.

Soil physics; nomenclature and field identification; grain shape and soil structure; classification systems; soil capillarity; Atterberg limits; permeability; seepage; flow nets; piping; subsurface drainage; frost action; permafrost; stresses in soils; consolidation; shear strength; stability of slopes; earth dams; bearing capacity; shallow foundations; pile foundations; earth pressure; retaining walls and open cuts; underpinning; caissons and cofferdams; subsurface exploration; soil stabilization. Lecture: three hours.

Prerequisites: Geol. 303; C.E. 304; C.E. 301; C.E. 306; C.E. 402 to be taken concurrently with C.E. 410.

420. *Senior Essay* Two Credit Hours

Required of all seniors as a prerequisite to graduation. See page 62.

DEPARTMENT OF EDUCATION

I. TEACHER-TRAINING

The chief function of the Department of Education is the training of secondary school teachers. To this end, it provides two teacher-training curriculums culminating in the degree of Bachelor of Science in the field of education.

One of these is a major in education which prepares for teaching in the secondary school subject-matter fields and which may lead to educational administration.

The second is a major in physical education which prepares for positions in physical education in high schools, in community health and recreation, in industrial establishments, and in the armed forces.

Both of these majors meet the South Carolina professional certification requirements and in general meet the certification requirements of other states.

Following are the descriptions of the courses included in these two teacher-training curriculums.

THE EDUCATION MAJOR

The following courses, in addition to the others listed on page 68, are required in this curriculum.

Ed. 301. *Philosophy of Education* Three Credit Hours

An orientation course in which the nature and the purposes of formal training programs are examined. A brief survey of the history and the various philosophies and theories underlying current educational efforts. Special attention is devoted to the significance of the dissemination of knowledge in a democracy.

Ed. 303. *Guidance* Three Credit Hours
Philosophy, principles, and techniques to provide teachers with competencies needed for participation in guidance programs; theories and practices of guidance, mental, vocational, and aptitude testing.

Ed. 306. *Educational Tests and Measurements* Three Credit Hours
Theories, principles, and practices of mental and educational measurements. The construction and uses of the various types of objective instruments of evaluation. Elements of statistics needed in the interpretation and use of examination results.

Ed. 400. *Directed Teaching* Six Credit Hours
A requirement for certification as a teacher; observation and teaching in approved high schools under approved advisory teachers; visitation and supervision by Department of Education supervisor; individual and group conferences of college supervisor, supervisory teacher, and trainee.

Ed. 401. *Methods and Materials of Secondary School Teaching* Three Credit Hours
Study of the aims, methods, and materials employed in secondary school teaching; organization of subject-matter; motivation and direction of learning; development of attitudes, appreciations and ideals; classroom presentation of formal materials; conducting informal activities and experiences; provision for individual differences; measuring educational outcomes; observation of teaching; reports; discussion.

Ed. 402. *Principles and Problems of Secondary Education* Three Credit Hours
Definition and analysis of the fundamental issues underlying American secondary education; the principles most applicable to the solution of these problems; the aims, curriculum, scope, and organization of the secondary school. Secondary education in a changing America; the impact of world conditions upon the secondary school; American secondary school and the future.

Ed. 403. *Seminar in Secondary Education* Three Credit Hours
Definition and discussion of principles, methods, and problems related to experience in directed teaching; consideration of practical problems of secondary school teaching and administration; discovery of specific professional interests; reading; reports.

Ed. 407. *Audio-Visual Aids* Three Credit Hours
The aims and scope of audio-visual instruction; the function of audio-visual aids in learning; principles and techniques underlying their use; projects and practice in the uses of objects, specimens, models, and pictures; the opaque projector, the motion picture, the film strip, and slides; radio, television, the public address system, and the various

types of recorders; selection and care of equipment; administration and supervision of the audio-visual program.

Ed. 420. Senior Essay **Two Credit Hours**
Required of all seniors as a prerequisite to graduation. See page 62.

THE PHYSICAL EDUCATION MAJOR

The Department of Education offers a major curriculum in the field of physical education.

Since most high school athletic coaches are called upon to teach, a teacher-training program is made an integral part of the physical education curriculum at The Citadel, and graduates are qualified for certification in the fields of history and general science.

In this curriculum, the following courses in physical education are required:

Ph. Ed. 201. *Introduction to Physical Education* **Three Credit Hours**

An introductory survey of physical education; historical background, nature, scope, and function of physical education; its aims, objectives, and principles; appraisal of possible positions in the overall field of physical education.

Ph. Ed. 301. *Health Education* **Three Credit Hours**

Community, group, and personal health problems considered; emphasis placed on producing recognition and understanding of health and safety factors in relation to the school situation.

Ph. Ed. 303. *Basketball* **Two Credit Hours**

Comparative study of defensive and offensive systems of team play; development of basic individual skills and techniques; teaching and coaching; rules and officiating.

Ph. Ed. 306. *Intramural Sports* **One Credit Hour**

Actual organization, management, and supervision of intramural activities at The Citadel; care of equipment; scheduling; keeping of records.

Ph. Ed. 401. *Organization and Administration of Physical Education* **Three Credit Hours**

Organization: delegation of authority and responsibility; use of the democratic method; formation of teams, tournaments, and leagues; program aims and objectives; curriculum building; course construction; lesson planning; special methods in instruction; class management and scheduling; special methods in instruction; class management and scheduling.

Administration: selection, purchase, and care of equipment; office poli-

cies and systems; budgeting in finances; publicity; motivating attendance; team and game management.

Ph. Ed. 402. *Football Theory* Two Credit Hours
Analysis and evaluation of offensive and defensive tactics, formations, and plays; individual techniques and fundamental skills in position play; teaching materials and methods; coaching; rules and rule interpretations; practice in officiating.

Ph. Ed. 403. *Individual Physical Education* Three Credit Hours
Principles and practices in the conditioning and care of athletes, the medical examination; safety in athletics; prevention of injuries; methods of massage and taping; therapeutic aids; kinesiological analysis of the mechanical action of bones and muscle groups; the handicapped student; diagnosis and assignment of special activities within and outside of the regular class work.

Ph. Ed. 404. *Methods of Teaching Physical Education* Three Credit Hours

Lectures, discussion, demonstration, and practice in teaching physical education in high school; selection and organization of materials for the program; techniques of instruction, lesson plans, administering and organizing classes for effective procedures.

Ph. Ed. 406. *Spring Sports* Three Credit Hours

Theory and practice in the fundamentals of coaching baseball, track, and tennis. Administration and execution of meets and tournaments.

Ph. Ed. 408. *Gymnastics and Tumbling* Two Credit Hours

Theory and practice of gymnastics, tumbling, and calisthenics with respect to teaching methods, skills, and the conduct of gymnastic meets.

Ph. Ed. 410. *Recreation and Outdoor Education* Two Credit Hours

Planning, conducting, and evaluating playground activities, camps, and recreational activities. Methods, procedures, and on-the job planning. The study of nature in the outdoors in its relation to recreation.

II. ELECTIVE FIELDS

The Department of Education offers required and elective courses in the fields of psychology, sociology, philosophy, and fine arts. Courses in these fields may be elected by students in departments other than education provided their class standings entitle them to make such election. A student may not elect a course scheduled in a year of college work more advanced than the college class of which he is a member, but he may elect courses scheduled for less advanced classes.

Students from other departments may elect any course offered under "Education" with the exception of Ed. 400, *Directed Teaching* and Ed. 403, *Seminar in Secondary Education*. All "activity" courses of the Physical Education curriculum, such as baseball, etc., except Ph. Ed. 306, *Intramural Sports*, are open only to students taking the full degree program in physical education.

Following are the elective fields and courses provided by the Department of Education.

Psychology

Psy. 201. *Educational Psychology* Three Credit Hours

Heredity, maturation, and environment as constituent factors in human nature; the nervous system as the basis of experience and behavior; individual differences; intelligence; learning; interest; principles and practices of effective learning; psychological approaches to pupil behavior; the psychology of teaching; motivational factors; attention and perception; emotion; *gestalt* concepts; attitudes, beliefs, and habits; tests and measurements; mental discipline and transfer; emotion; mental health.

Psy. 202. *Psychology of Adolescence* Three Credit Hours

The physical, psychological and social development of the adolescent. Essentially a continuation of Educational Psychology, but with greater emphasis on personality formation and problems of social adjustment.

Psy. 303. *General Psychology* Three Credit Hours

Elective for juniors and seniors. Required of pre-medical students. An introduction to the scientific study of human behavior; emphasis upon experimental investigation of such fields as attention, perception, learning, intelligence, emotion, personality.

Psy. 304. *Abnormal Psychology* Three Credit Hours

Required of pre-medical students.

Structural and functional disorders connected with sensation, perception, and association; theories of personality; discussion of the common neuroses and psychoses.

Prerequisite: Psychology 303.

Psy. 305. *Social Psychology* Three Credit Hours

A study of the individual in relation to his social environment with special attention to group behavior, social motivation, and individual adjustment to group situations; may be considered as a social science course.

Philosophy

Phil. 306. *Logic* Three Credit Hours

Elective for juniors and seniors.

The principles of valid thinking; laws of reasoning; common fallacies; deductive and inductive methods.

Phil. 307. *Greek Thought* Three Credit Hours

Elective for juniors and seniors.

A brief survey of Greek philosophy, primarily a study of Plato's *Republic* and Aristotle's *Politics*.

Phil. 308. *Medieval and Modern Philosophy* Three Credit Hours

Elective for juniors and seniors.

Philosophy in Christendom from the Fourth Century to present thought; particular reference to Augustine and Thomas Aquinas in the medieval period; the Renaissance and the rise of modern science; rationalization in Descartes, Spinoza, Leibnitz; the empiricism of Locke, Berkeley, and Hume; Kant and his successors; recent movements.

Sociology

The following courses in the field of sociology are numbered in their logical order of sequence. However, no course is prerequisite for any other that is offered. Open to juniors and seniors only.

Soc. 301. *Introduction to Sociology* Three Credit Hours

A study of the principles of sociology, embracing factual knowledge concerning the history of culture with particular stress laid upon the social heritage, the formation and functioning of social groups, inter-group relationships, and group conflicts.

Soc. 302. *Social Disorganization* Three Credit Hours

A study of the breakdown of society in its various forms with consideration of the causation as well as the resultant problems; special emphasis given to contemporary problems such as the broken family, juvenile delinquency, unemployment, and individual personality mal-adjustment.

Soc. 303. *The Contemporary American Family* Three Credit Hours

A frank and comprehensive analysis of the problems confronting the modern American family, with case studies treating the various phases of conflict within the family.

Soc. 401. *Criminology* Three Credit Hours

A study of crime, its causes, conditions, prevention, and treatment; theoretical views and hypotheses supported by concrete facts, a method assuring the student that any theory proposed or upheld is based upon realities and exact observation.

Soc. 402. *Social Anthropology* Three Credit Hours

The nature of social organization and the processes of social interaction

characterizing different societies; stress on culture in relation to the society which is the creator and bearer of that culture.

Fine Arts

Art 305. *Music Appreciation* Three Credit Hours

A non-technical course to enhance the student's understanding and enjoyment of music by a two-fold approach: first to gain fundamental knowledge of style, content and form of the more outstanding works of the great composers; and second, to study the evolution of musical art up to the present time; particular emphasis placed upon the latter.

Art. 306. *Art Appreciation* Three Credit Hours

Lectures on the history and appreciation of art with a view to developing an appreciation of art techniques and art qualities.

DEPARTMENT OF ELECTRICAL ENGINEERING

In 1941 the Board of Visitors authorized the establishment of a Department of Electrical Engineering at The Citadel. The department was founded to meet the needs of many students who are attracted to the type of education which The Citadel offers, but who were formerly compelled to go elsewhere to obtain training in the field of their special interest.

A considerable part of the normal curriculum in electrical engineering had long been offered by the Department of Physics for the benefit of students in physics and in civil engineering. Upon the founding of the Department of Electrical Engineering, this work was expanded into a curriculum concordant with the offerings of other engineering colleges, and the laboratory facilities were augmented to provide training leading to the degree of Bachelor of Science in Electrical Engineering. Before any instruction had been given in the advanced phases of this program, all of the men enrolled in it were withdrawn for service in the armed forces, and the development of the department was arrested until after the close of the war.

The first graduating class of eight men received degrees in September, 1948. Since then, the department has grown steadily in facilities and in enrollment. In December, 1949, eighty students in electrical engineering were admitted to Student Membership in the American Institute of Electrical Engineers, marking the first phase in professional recognition of the curriculum.

It is the purpose of the department to prepare men for professional work or for graduate study in the field of electrical engineering and to give them training in as many of the elements of a broad education

as can be included in a program of professional study leading to the degree of Bachelor of Science in Electrical Engineering.

The laboratories and classrooms of the department are in the east wing of Bond Hall. Two dynamo laboratories are equipped with machine benches having individual electric power panels to which connections are made by polarized plugs. Three motor-generators provide variable-voltage direct current to outlets on each machine-bench panel. Each panel also has A.C. outlets which provide single-phase and three-phase service at 120 volts and at 220 volts. For special uses, the A.C. supply lines are supplemented by a polyphase transformer bank, wired to a junction panel. This provides flexible connection for several additional single-phase, two-phase, and three-phase voltages.

The machines are in moderate size to allow the student to have intimate contact with them in their operation. This also eliminates the ready-made connections, the complex control devices, and the cumbersome metering circuits required by large machines. The student can, therefore, make his own connections and operate and control the machines without assistance. With the exception of a few units designed particularly for the laboratory, the machines are typical commercial equipment. They represent all modern types of small A.C. and D.C. machinery in common use. Meters, instruments, load components, control devices, tachometers, oscillographs, and machine accessories are provided.

An instrument stock-room joins the electronics laboratory to the electrical-measurement laboratory. The apparatus for each of these laboratories is modern precision equipment made for laboratory and industrial use. Both laboratories are equipped with consistent and co-ordinated connector devices which promote neatness and speed in circuit wiring.

The shop contains modern machine tools with individual motor-drives, power woodworking tools, benches, cabinets, electric and gas welders, and spray painting equipment. Its facilities are adequate for instrument repair and maintenance, and for construction of special apparatus. A photographic dark-room is equipped for developing films and making prints.

Curriculum

The courses of freshmen and sophomores are the same as in civil engineering, with one exception. These courses are described by the departments which offer them.

202. *Introduction to Electrical Engineering* Three Credit Hours
Required of Electrical Engineering Sophomores.
D.C. circuit theory; simple networks and their solution; introduction

to electric and magnetic fields; electrical measuring instruments; selected topics supplementing the electrical content of Physics 202. Lecture: three hours.

Prerequisites: Phys. 201, eligible for Math. 201.

301. *D. C. Circuits and Machines* Five Credit Hours

Required of Electrical Engineering Juniors.

Flux, torque, current, electromotive force, and speed relations in self-regulating machines; control of motors and generators; power losses and efficiencies of machines; commutation and armature reaction; magnetic and electric circuit calculations. Lecture: five hours.

Prerequisite: Math. 201; Physics 202; E.E. 202.

302. *A.C. Circuits and Machines* Five Credit Hours

Required of Electrical Engineering Juniors.

Analytical and vector treatment of harmonically varying electromotive forces, currents, and power in any combination of resistance, inductance, and capacitance; calculation of balanced and unbalanced polyphase circuits; construction, theory, design, and operation of alternators, motors, transformers, and converters; control equipment; power factor correction, voltage regulation of the single phase transmission line. Lecture: five hours.

Prerequisite: E.E. 301; Math. 202.

303. *D.C. Machines Laboratory* Two Credit Hours

Required of Electrical Engineering Juniors.

A laboratory course to accompany E.E. 301. Laboratory: four hours.

304. *A.C. Machines Laboratory* Two Credit Hours

Required of Electrical Engineering Juniors.

A laboratory course to accompany E.E. 302. Laboratory: four hours.

306. *Elements of Electrical Engineering* Four Credit Hours

Required of Civil Engineering Juniors.

An abbreviated course in D.C. and A.C. circuits and machines, adapted to the needs of students in civil engineering. Lecture: three hours; laboratory: two hours.

Prerequisites: Math. 202; Physics 202.

401. *Electron Tubes* Five Credit Hours

Required of Electrical Engineering Seniors.

Characteristics of high-vacuum and gas-filled tubes; theory and design of rectifier, amplifier, and cathode-ray tube circuits. Lecture: five hours.

Prerequisites: E.E. 302, 304; Physics 302; Math. 302.

402. *Application of Electron Tubes* Five Credit Hours

Required of Electrical Engineering Seniors.

Theory and design of electron tube circuits; audio, video, and radio-

frequency amplifiers; oscillators, modulators, and detectors; A.M. and F.M. broadcasting systems. Lecture: five hours.

Prerequisites: E.E. 401, 403, 405, 407, 411.

403. *Electron Tubes Laboratory* Two Credit Hours

Required of Electrical Engineering Seniors.

A laboratory course to accompany E.E. 401. Laboratory: four hours.

404. *Electronics Laboratory* Two Credit Hours

Required of Electrical Engineering Seniors.

A laboratory course to accompany E.E. 402. Laboratory: four hours.

405. *Electrical Measurements* Three Credit Hours

Required of Electrical Engineering Seniors.

Modern methods of measuring current, electromotive force, inductance, capacitance, and magnetic quantities; calibration of electrical instruments; location of circuit faults. Lecture: three hours.

Prerequisites: E.E. 302, 304; Physics 302; Math. 302.

406. *Introduction to Electronics* Four Credit Hours

Required of Physics Seniors.

Characteristics of electron tubes and their use as rectifiers, amplifiers, and oscillators. A course designed to introduce students to the use of electron tubes and circuits in the field of measurements. Lecture: three hours; laboratory: two hours.

Prerequisite: E.E. 413.

407. *Electrical Measurements Laboratory* Two Credit Hours

Required of Electrical Engineering Seniors.

A laboratory course to accompany E.E. 405. Laboratory: four hours.

408. *Transmission Lines* Three Credit Hours

Required of Electrical Engineering Seniors.

Lines with lumped constants; hyperbolic functions applied to the treatment of long transmission lines with distributed constants; wave filter networks; equivalent circuits; transformations in circuit solutions. Lecture: three hours.

Prerequisites: E.E. 401, 411.

409. *Heat Engines* Three Credit Hours

Required of Electrical Engineering Seniors.

Principles of energy transformation in boilers, steam engines, turbines, internal combustion engines, air compressors, and refrigerating apparatus; fundamental thermodynamics; thermodynamic analyses of the operation of heat engines. Lecture: three hours.

410. *Power Plant Engineering and Design* Three Credit Hours

Required of Electrical Engineering Seniors.

A survey of power plant design and operation; economic factors in power plant design, construction, operation, and in power distribution. Prerequisites: E.E. 409, 411.

411. *Advanced A.C. Theory* Three Credit Hours

Required of Electrical Engineering Seniors.

Treatment of transients and oscillatory circuits by the use of differential equations; analysis of complex A.C. waves; complex variable solution of A.C. circuits; unbalanced polyphase circuits; the Fourier Series applied to analyses of waves and pulses. Lecture: three hours. Prerequisites: E.E. 302; Physics 302; Math. 302.

413. *Electrical Engineering* Seven Credit Hours

Required of Physics Seniors.

A composite course arranged to meet the specific needs of students in advanced physics. Abbreviated study of A.C. and D.C. circuits and machines; selected topics, such as simple transients, magnetic testing, absolute measurements of electrical quantities. Lecture: five hours; laboratory: four hours.

Prerequisites: Physics 302.

420. *Senior Essay* Two Credit hours

Required of all seniors as a prerequisite to graduation. See page 62.

DEPARTMENT OF ENGLISH

The objectives of the Department of English are to make the student proficient in the use of his own language and to develop in him, through the directed study of the great literature of England and America, not simply an understanding and appreciation of the masterpieces read, but particularly an ability to approach literature independently with some confidence of recognizing both its art and its meaning.

English is required of all students in freshman and sophomore years, and may be chosen as a major course of study for junior and senior years.

Offering a reasonable mastery of the English language and a broad cultural background attendant upon a study of English and American literature, major work in English provides a firm foundation for numerous fields of endeavor: the teaching of English, creative writing, journalism, the ministry, law, and certain types of business. The department allows its students at least five electives in their junior and senior years in order that they may take in other departments subjects further

necessary to their anticipated careers. These subjects must be chosen, however, in consultation with the head of the department.

A student who elects English as his major course of study is required to take English 203, 204 (The English Language) in addition to 201, 202 (A Survey of English Literature) in his sophomore year. If, for some legitimate reason, he cannot take 203, 204 in his sophomore year, he must take it in his junior year. In the junior year he must take two full-year courses, or the equivalent, in English; and in the senior year, three. English 401, 402 (Shakespeare) and English 403, 404 (American Literature) are required courses; otherwise the student is free to choose from the courses offered by the department in any given year. It should be noted, however, that 205, 206, 208 (Public Speaking), 405, 406 (World Literature), and 409, 410 (Creative Writing) are not courses which fulfill requirements for major work. For further details see the tabulation of the curriculum for the English Elective under the heading "Courses of Study."

101, 102. *Composition and Literature* Six Credit Hours

Required of freshmen who, on the basis of nationally approved tests, show some real understanding of the fundamentals of the English language.

The development of the basic skills of writing and reading, and some development of the critical faculty as applied to literature. Lecture: three hours.

103, 104. *Composition and Literature* Six Credit Hours

Required of freshmen who, on the basis of tests, show considerable lack of understanding of the fundamentals of the English language. The same course as English 101, 102, but with an additional class hour each week so that there may be more time for the mastery of fundamentals. Lecture: four hours.

105, 106. *English for Spanish-speaking Students* Six Credit Hours

A course in English as a foreign language, taught in the Department of Modern Languages with the cooperation of the Department of English, and made mandatory for the fulfillment of the general Modern Language requirement for those Spanish-speaking students matriculating at The Citadel with too little English to succeed. Lecture: three hours.

201, 202. *A Survey of English Literature* Six Credit Hours
Required of all sophomores.

A tracing of the course of English literature from the earliest times to the end of the nineteenth century as it is seen in the selected works of some twelve masters; analysis and appraisal of the masterpieces read; frequent themes on the works studied. Lecture: three hours.

Prerequisite: Engl. 101, 102 or 103, 104.

203. *The English Language: History and Grammar* Three Credit Hours

Required of sophomores majoring in English. Open as an elective to others.

An introductory survey of the development of Modern English, beginning with the Indo-European background, including the more notable morphological and phonological changes from the Old English period to the modern period, and concluding with emphasis on standard current English grammar and usage. Lecture: three hours.

204. *The English Language: General Semantics* Three Credit Hours

Required of sophomores majoring in English. Open as an elective to others.

A psychological approach to the study of language as an abstracting process employing a system of verbal symbols for informative, directive, and affective purposes. Lecture: three hours.

205. *Introduction to Public Speaking* Three Credit Hours

Open to sophomores, juniors, and seniors.

The general principles of speech composition and speech presentation; practice in expository speaking. Lecture: three hours.

206. *Persuasive Speaking* Three Credit Hours

Open to sophomores, juniors, and seniors.

Logic, rhetoric, and psychology of securing desired reactions from friendly, neutral, and hostile audiences; sources of speech material and planning the speech; improvement of volume, diction, rate, and platform manners in extemporaneous and manuscript delivery of classroom speeches. Lecture: three hours.

Prerequisite: Public Speaking 205.

208. *Argumentation and Debate* Three Credit Hours

Open to sophomores, juniors, and seniors.

Inductive, deductive, and causal reasoning; literal and figurative analogies; types of common fallacies; kinds of evidence and presentation of evidence; use of statistics; group discussions; the formal brief and the formal debate; parliamentary procedure; criticism of classroom and auditorium speeches. Lecture: three hours.

Prerequisite: Public Speaking 205.

Except for Shakespeare (401, 402) and American Literature (403, 404), which are offered every year, the following courses are offered in alternate years. Starred courses are offered in 1957-58; unstarred courses, in 1958-59.

*301. *Chaucer* Three Credit Hours

Open to juniors and seniors.

An introduction to Chaucer's language, narrative skill, and mastery of poetic forms through reading in the original "The General Prologue" and representative tales from *The Canterbury Tales*. Lecture: three hours.

*302. *Seventeenth Century Poetry* Three Credit Hours
Open to juniors and seniors.

A study of representative poetry of Ben Jonson and "his sons," of Donne and the metaphysical poets, and especially of Milton. Lecture: three hours.

*303. *Neoclassicism, 1660-1744* Three Credit Hours
Open to juniors and seniors.

Dryden, Addison, Swift, Pope, with some attention to the lesser writers of the period. Lecture: three hours.

*304. *The Romantic Movement* Three Credit Hours
Open to juniors and seniors.

A study of the chief features which culminated in the Romantic writings of the early nineteenth century with special emphasis on the five major poets: Wordsworth, Coleridge, Byron, Shelley, Keats. Lecture: three hours.

305. *Victorian Poetry and Prose* Three Credit Hours
Open to juniors and seniors.

A study of the period from 1830 to 1900 showing the effects of the Industrial and Scientific Revolutions on traditional attitudes toward art and life through the works of the major writers of the period, with emphasis upon the poetry of Tennyson, Browning, and Swinburne and upon the prose of Carlyle, Arnold, Huxley, and Pater. Lecture: three hours.

306. *Modern British and American Poetry* Three Credit Hours
Open to juniors and seniors.

Study of the poetry of Yeats, Robinson, Frost, Eliot, and Auden from as extensive a reading of their work as time permits; lectures planned to provide a foundation for future reading in these five and other poets; term essay and a class report on a twentieth century poet other than the above five, each member of the class studying a different poet. Lecture: three hours.

307. *A Survey of English Drama to Shaw* Three Credit Hours
Open to juniors and seniors.

A tracing of the course of English drama from its origin in medieval times to the beginnings of modern drama in the middle of the nineteenth century; detailed study of representative plays. Lecture: three hours.

308. *Modern British and American Drama* Three Credit Hours
Open to juniors and seniors.

A detailed study of a few representative plays to show the major trends in British and American drama since the time of Ibsen. Lecture: three hours.

309. *A Survey of the English Novel to 1900* Three Credit Hours
Open to juniors and seniors.

Lectures on narrative forms which preceded the novel and on lives and works of major eighteenth-and nineteenth-century novelists; reading and discussion of six of their novels. Lecture: three hours.

310. *Modern British and American Novel* Three Credit Hours
Open to juniors and seniors.

Beginning with Conrad and Howells, a study of British and American novels since 1900. Required reading: eight novels. Lecture: three hours.

*401, 402. *Shakespeare* Six Credit Hours
Required of all English majors. Open as an elective to other juniors and seniors.

An intensive study of some twelve plays—comedies, histories, tragedies, and dramatic romances—to give the student insight into the greatness of Shakespeare as dramatist, poet, and illuminator of life. Lecture: three hours.

*403, 404. *American Literature* Six Credit Hours
Required of all English majors. Open as an elective to other juniors and seniors.

A study of some of the best writing of twelve to fifteen of the major American authors from colonial times to the present; emphasis upon how literature exhibits intrinsic artistic merit and upon how it reflects American cultural development. Lecture: three hours.

405. *World Literature* Three Credit Hours
Open to juniors and seniors.

An introduction through standard translations to the basic masterpieces of Greek and Roman classics, and a consideration of their influence on Western thought and culture. Lecture: three hours.

406. *World Literature* Three Credit Hours
Open to juniors and seniors.

A study of selected masterpieces in translation of Western European literature from the Renaissance through the nineteenth century. Lecture: three hours.

*407, 408. *Principles of Literary Criticism in English* Six Credit Hours

Open to departmental seniors and to any student who has completed

two full-year courses in English, or the equivalent, above the sophomore level.

A study of the classical tradition in criticism, the Renaissance restatement, and neoclassic developments; and of the development of modern criticism. Lecture: three hours.

*409. *Writing Poetry* Three Credit Hours

Open to juniors and seniors.

Analysis of and practice in writing poetry; varied in accordance with the experience and expectation of the students registered. Lecture: three hours.

*410. *Writing the Short Story* Three Credit Hours

Open to juniors and seniors.

Analysis of short stories, followed by practice in writing them. Lecture: three hours.

420. *Senior Essay* Two Credit Hours

Required of all seniors as a prerequisite to graduation. See page 62.

DEPARTMENT OF HISTORY

The Department of History endeavors to give to the student an acquaintance with and an appreciation of our heritage; to enable him to see causes and effects, contrasts and comparisons as shown in the development of civilization; to give him an accurate knowledge of the history of his own country and to familiarize him with its institutions and the democratic ideals which have influenced American life; to acquaint the student who elects this subject with the standard works in its various fields and to prepare him to pursue graduate work.

Students electing history as a major are required to take in addition to the freshman survey (History 101, 102) the following courses: History 201, 202; History 301, 302; and a total of twenty-one semester hours selected from the junior and senior courses offered by the department. They are also required to take two years of a modern language, Economic Foundations of Modern Life, American Government, and either International Politics or Constitutional Law. For further details see the tabulation of the curriculum for a History Major, page 71.

Courses marked with an asterisk () are usually offered in alternate years or on demand.*

101, 102. *A Survey of American History* Six Credit Hours

Required of all freshmen except majors in Physics and Mathematics. Required of all sophomores majoring in Physics and Mathematics.

Survey of American history from the period of discovery to the present; a brief treatment of the colonial period, followed by a more detailed study of such subjects as the causes of the Revolution, the framing of the Constitution, the development of political parties, the sectional conflict, economic progress and problems, and foreign relations; special emphasis placed on understanding the nature of American democracy and the role of the United States in world affairs from 1789 to the present.

201, 202. *A Survey of European Civilization Since 1500* Six Credit Hours

Required of all sophomores majoring in History, Political Science, English, and Modern Languages, and of juniors in Physical Education. The historical background of contemporary civilization, with emphasis on movements and developments of enduring significance; the evolution of national states; the growth of representative and democratic institutions of government; the development of modern capitalism; the origins of current international conflicts; the progress of science, art, and literature.

301, 302. *History of England* Six Credit Hours

Required of all History majors.

A survey of English history from early times to the present; emphasis on the formation of the English constitution, the growth of limited monarchy, and the evolution of parliament; stress throughout the course on social and economic factors conditioning political changes.

*303, 304. *The United States since 1900* Six Credit Hours

Juniors majoring in History are required to take either History 303, 304 or History 305, 306.

American social, cultural, economic, and political development in the twentieth century; emphasis on the increasing importance of the United States in world affairs and significant political and economic changes.

*305, 306. *European History since 1870* Six Credit Hours

A study of the development of liberalism and democracy in Western Europe; international politics and the revival of imperialism; the origins of World War I; efforts toward international organization and collective security; the rise of totalitarian states and their aggression; World War II and its aftermath, the Cold War.

*307. *Studies in Biography* Three Credit Hours

The study of significant personalities in European or American history; lectures, reports and discussion.

*309. *The American Civil War and Reconstruction* Three Credit Hours

Emphasis on the political, economic, and social developments of the period, with some attention to the military aspects of the war.

*310. *The Era of the French Revolution and Napoleon* Three Credit Hours

A survey of the Old Regime and the causes of the Revolution, followed by an examination of the principal events of the period, stressing the innovations of the Revolutionary governments, the causes of Napoleon's rise to power, his achievements in France and in Europe, the reasons for his eventual downfall.

*312. *The New South* Three Credit Hours

The political, economic, and social development of the South since 1877; emphasis on contemporary regional problems and their impact on American life.

*313. *Studies in American Economic and Social History* Three Credit Hours

Topics in American social and economic history selected for their past or present significance; primarily a discussion course.

315, 316. *History of Modern Warfare* Six Credit Hours

A survey of the development of modern warfare, emphasizing the impact of social, economic, political, and technological forces upon military theory and practice.

*401, 402. *History of American Diplomacy* Six Credit Hours

Seniors majoring in history are usually required to take either History 401, 402, History 403, 404 or History 409, 410.

An examination of the heritage, fundamental principles, and progressive development of American foreign policy from colonial times to the present.

*403, 404. *Latin American History* Six Credit Hours

Survey of the economic, cultural, and political development of Latin America; study of the nations as a unit, with special attention to the individuality of each; concentration by each student in his collateral reading on some one country.

*405, 406. *History of Colonial America* Six Credit Hours

Seniors majoring in history are usually required to take either History 405, 406 or History 407, 408.

A more detailed treatment of the foundations of American civilization than in History 101; the motives of colonization, the evolution of self-government, the extension of the frontier; economic, social, and religious life, the causes of the Revolution, the problems of the Confederation.

*407, 408. *History of the Ancient World and the Middle Ages* Six Credit Hours

The Ancient World in the first semester, the Middle Ages in the sec-

ond; a survey of the history of the Greeks, the Romans, and the people of the Middle Ages, their wars and political institutions, their economic and social life, their cultural and intellectual achievements.

*409, 410. *History of the Far East* Six Credit Hours
 Treating the development of Far Eastern civilizations from the classical period to the present, emphasizing the Western impact on those civilizations, and the growth of nationalism in the Far East.

*411. *South Carolina History* Three Credit Hours
 A survey of the political, economic, social, and intellectual developments of South Carolina from its discovery to the present, with emphasis on the relation of the state to the South and to the nation.

420. *Senior Essay* Two Credit Hours
 Required of all seniors as a prerequisite to graduation. See page 62.

GEOGRAPHY

309. *Elementary Geography* Three Credit Hours
 An introductory course dealing primarily with the elements and principles of geography.

310. *Cultural Geography* Three Credit Hours
 An application of geographic principles to human activities in selected regions of the world.

*311. *Economic Geography* Three Credit Hours
 The geographic foundations and distribution of economic activities in different parts of the world.

*312. *Historical Geography* Three Credit Hours
 A survey of geographic influences in history.

DEPARTMENT OF MATHEMATICS

The stated purpose of The Citadel is the training of young men for service to their country as civilian leaders or as officers in the armed forces, if the need arises. To meet the demands of this modern scientific age such a program of education must include basic studies in chemistry, physics, and mathematics. To this end all students at The Citadel are required to take as least one year of mathematics. In the science and engineering electives two or more years of mathematics must be scheduled.

There is today an ever increasing demand for college graduates trained in mathematics on the part of government and industrial laboratories as well as schools and colleges. At The Citadel, students who

elect mathematics as a major field of study are required to take 43 semester hours of mathematics and have 36 semester hours of electives in related fields of their choice.

The customary mathematical techniques are developed in all the courses of the department, but students are encouraged to obtain results through reasoning processes rather than by stereotyped use of formulas.

111. <i>College Algebra</i>	Three Credit Hours
Required of all freshmen.	
Linear equations; systems of linear equations; quadratic equations; inequalities; binomial theorem; theory of equations; determinants.	
112. <i>Trigonometry</i>	Three Credit Hours
Required of all freshmen.	
Trigonometric functions; solution of right triangles; trigonometric identities and equations; solution of oblique triangles; logarithmic solution of triangles.	
Prerequisite: Mathematics 111.	
113. <i>Analytic Geometry</i>	Three Credit Hours
Required of all freshmen in the science and engineering electives.	
Coordinate systems; the straight line; the circle; conics; curve tracing; loci.	
Prerequisite: To be preceded or accompanied by Mathematics 112.	
201, 202. <i>The Calculus</i>	Ten Credit Hours
Required of all sophomores in the science and engineering electives.	
Theory of differentiation; application of derivatives; theory of integration; application of integrals; series; partial differentiation; multiple integrals.	
Prerequisite: Mathematics 111, 112, 113 with a minimum total of 18 quality points for these courses.	
301, 302. <i>Differential Equations</i>	Six Credit Hours
Required of all juniors in the electrical engineering, mathematics, and physics electives.	
Differential equations of the first order and degree; linear equations with constant coefficients; miscellaneous differential equations; applications; power series solutions; partial differential equations; Fourier series.	
Prerequisite: Mathematics 201, 202.	
*303, 304. <i>Algebraic Theories and Applications</i>	Six Credit Hours
Foundations of the number system; theory of equations; determinants and matrices.	
Prerequisite: Mathematics 201, 202.	

*305, 306. *Modern Geometry* Six Credit Hours

Fundamental theorems; transformations; harmonic sets; properties of triangles and circles; construction problems.

Prerequisite: Mathematics 111, 112, 113.

*307, 308. *Projective Geometry* Six Credit Hours

Homogeneous point and line coordinates; principle of duality; cross ratio; projective forms; the conics and their properties.

Prerequisite: Mathematics 201, 202.

*401, 402. *Advanced Calculus* Six Credit Hours

Vector calculus; Bessel's functions; partial differential equations; Fourier series; Laplace transforms; functions of a complex variable.

Prerequisite: Mathematics 301, 302.

*403, 404. *Functions of a Complex Variable* Six Credit Hours

Real and complex numbers; differentiation and integration of a function of a complex variable; mapping; the linear fractional transformation; infinite series; properties of single-valued and multiple-valued functions.

Prerequisite: Mathematics 301, 302.

*405, 406. *The Mathematical Theory of Statistics* Six Credit Hours

Frequency distribution; averages; measures of dispersion; correlation; probability; the normal curve; theory of sampling.

Prerequisite: Mathematics 301, 302.

420. *Senior Essay* Two Credit Hours

Required of all seniors as a prerequisite to graduation. See page 62.

*N. B. Two of these starred courses will be offered each year.

DEPARTMENT OF MILITARY SCIENCE AND TACTICS

The Department of Military Science and Tactics is an academic department of The Citadel and includes all Army Reserve Officers' Training Corps (AROTC) activities. The mission of the AROTC is to produce junior officers who have the qualities and attributes essential to their continued development as officers in the United States Army Reserve and the Regular Army. In keeping with this mission, the Department of Military Science and Tactics offers a four year General Military Science Course of instruction in subjects common to all branches of the Army. As a prerequisite for a commission, a cadet must have received a baccalaureate degree. Outstanding ROTC cadets may be offered a commission in the Regular Army under the provisions of the Distinguished Military Student Program.

The four year course of Military Science is divided into a Basic Course which is pursued during the lower two years, and an Advanced Course which is pursued during the upper two years. Cadets formally enrolled in the Basic Course receive a uniform allowance of \$50.00 a year from the U. S. Government. Cadets formally enrolled in the Advanced Course receive a uniform allowance of \$100.00 a year and a subsistence allowance of approximately \$27.00 a month.

Applicants for formal enrollment in the Army ROTC must:

Be citizens of the United States;

Be physically qualified under standards prescribed by the Department of the Army;

Be not less than sixteen nor more than twenty-one years of age at the time of enrollment;

Maintain a satisfactory scholastic standing;

Relinquish, by transfer or discharge, membership in any non-Army reserve organization.

Cadets who cannot meet the requirements for formal enrollment in the ROTC are nevertheless required by college regulations to pursue the four year course of instruction offered by the Department of Military Science and Tactics or by the Department of Air Science. Cadets who at a later period are able to meet the requirements for formal enrollment in the ROTC are usually given ROTC credit for all work satisfactorily completed in Military Science.

It is a requirement of the Department of the Army that the academic and military instruction of all cadets be in phase. Thus, freshmen pursue only MS I (Military Science), sophomores MS II, juniors MS III, and seniors MS IV.

Applicants for enrollment who have previous ROTC training and who seek advance standing in Military Science may receive same only after receipt by The Citadel of their record as an ROTC cadet attested to by proper authority at their previous institution. Normally this record is requested by The Citadel after the student has properly registered. Cadets with previous training in the Armed Forces may receive such credit toward advanced ROTC standing as is determined by the Professor of Military Science and Tactics.

Certain MS IV cadets are eligible to participate in the Army ROTC Flight Program in addition to the normal Military Science curriculum. The principal purposes of this program are to motivate college students to seek a career in Army aviation, and to create a reserve pool of qualified pilots who may be utilized in event of a national emergency.

Cadets who are accepted for formal enrollment in the ROTC are given Selective Service deferments which remain in effect as long as

the cadet maintains satisfactory academic and military standards. The deferment agreement permits the cadet to complete his college course of instruction but requires that he accept a commission, if offered, and serve on active duty for a period of two years, or serve on active duty for training for a period of six months, according to the needs of the Service.

The course of instruction for the four years is as follows:

101, 102. *Military Science I* (90 hours) Four Credit Hours
Organization of the Army and ROTC; American military history; individual weapons and marksmanship; school of the soldier and exercise of command.

201, 202. *Military Science II* (90 hours) Four Credit Hours
Crew-served weapons and gunnery; map and aerial photograph reading; school of the soldier and exercise of command; role of the Army in National Defense. Prerequisite: Military Science 101, 102.

301, 302. *Military Science III* (150 hours) Six Credit Hours
Small unit tactics and communications; organization, function and mission of the arms and services; military teaching methods; leadership, school of the soldier, and exercise of command.

Prerequisite: Military Science 201, 202.

Summer Camp Training: Upon the completion of Military Science III all formally enrolled ROTC cadets are required to attend the Summer Camp for practical instruction and field training. The course lasts six weeks and begins on or about 20 June. Each camp is conducted by the Army at an appropriate Army camp or station and is considered a concentrated laboratory course in Military Science and Tactics where the theory learned in the classroom is put into practice.

401, 402. *Military Science IV* (150 hours) Six Credit Hours
Logistics; operations; military administration and personnel management; service orientation; school of the soldier and exercise of command.

Prerequisite: Military Science 301, 302.

DEPARTMENT OF MODERN LANGUAGES

It is the purpose of the Department of Modern Languages that students majoring in this subject shall receive a thorough knowledge of one language, written and spoken, a reasonable degree of competence in a second, and a good understanding of the important writers, the literary developments, and the cultures which these languages represent. The aims of the department are both to develop understanding of other

civilizations and to prepare the student to follow a career requiring linguistic skill or literary knowledge. He is prepared to do graduate work in a language if he so desires.

In a world being rapidly drawn together by improved means of communication, yet with its parts still sharply differentiated in language, customs, and ways of thinking, it is important that an educated man should not be reduced to indirect and highly defective means of contact with all cultures other than his own. While one cannot learn all languages, certain ones, such as French, German, and Spanish, are widely used outside the countries where they originated and are keys to a better understanding of mankind. For scientific research and for many commercial and professional positions, knowledge of languages may prove valuable or even essential.

Students who elect languages as their major field must satisfactorily complete seven courses in languages, including, for one language, at least two courses above the intermediate level. They must complete the Survey of French Literature. The exact sequence of their courses may vary according to the language chosen for their major work and the point at which their college work in languages was begun. Students wishing to take a language course as an elective may take any course for which they have done the prerequisite work.

In courses above the intermediate level, the work of each semester is a unit, and credit will be given for its successful completion.

French

101, 102. *Elementary French* Six Credit Hours
For students who elect French and have entered The Citadel with less than two units of the language.

The reading and writing of simple French; dictation; elementary conversation with drill in pronunciation; elements of French grammar.

201, 202. *Intermediate French* Six Credit Hours
For students who have completed French 102, or have entered The Citadel with two or three units of the language.

Reading from authors of the nineteenth and twentieth centuries; composition and conversation based on the reading material; grammar review to correct faults in usage.

301, 302. *Introductory Survey of French Literature* Six Credit Hours

Required for the modern language elective course. Open to students who have completed French 202.

A general survey of French Literature from its beginnings through the nineteenth century; extensive reading, reports, discussion in French.

The following courses will be given when there is sufficient demand, and according to the wishes and needs of the students.

401, 402. French Composition and Conversation Six Credit Hours
Open to students who have completed French 302, or who have completed French 202 with a grade of A or B.

Composition and conversation with grammar review when needed, to produce fluency and accuracy in the use of spoken and written French; some use of an elementary form of the *explication de textes*.

403, 404. Eighteenth Century French Literature Six Credit Hours
Political and philosophical thought in the eighteenth century, traced through the writings of Montesquieu, Voltaire, and Rousseau; the beginnings of Romanticism as shown in Rousseau and other writers; lectures in French; collateral readings and reports.

Prerequisite: French 302.

405, 406. The Classical Period of French Literature Six Credit Hours
The literature of the seventeenth century, that of France's most distinctive and in many respects finest contribution to the world's literature and culture; especial attention given to the plays of Corneille, Racine, and Molière.

Prerequisite: French 302.

407, 408. Nineteenth Century French Literature Six Credit Hours
French literature from Chateaubriand to Zola and Anatole France; the Romantic, realistic, and naturalistic movements, with special emphasis on Balzac, Hugo, and Flaubert; lectures in French, discussion, outside reading.

Prerequisite: French 302.

German

101, 102. Elementary German Six Credit Hours
For students electing German and having entered The Citadel with less than two units of the language.

Pronunciation and the elements of German grammar; written and oral exercises; translation of simple German into English.

201, 202. Scientific German Six Credit Hours
For the students taking the chemistry, physics, or pre-medical course. First-year grammar study continued; translation of texts in various sciences; special stress on sentence structure and word-building.
Prerequisite: German 102 or two entrance units.

203, 204. Intermediate German Six Credit Hours
Completion and review of elementary grammar; reading of texts from German literature; conversation in German.
Prerequisite: German 102 or two entrance units.

301, 302. *German Literature of the Nineteenth Century* Six Credit Hours

Representative work of outstanding novelists and dramatists, with discussion of the literature of the period; assigned reading and reports.

401, 402. *Goethe's Faust* Six Credit Hours

Goethe's greatest drama, *Faust*, studied in connection with his life and with regard to his message today; its genesis and growth; translation of Part I and selections from Part II; *Faust das Puppenspiel* and its relation to Goethe's *Faust*; lectures, reading, and reports.

Spanish

101, 102. *Elementary Spanish* Six Credit Hours

For students electing Spanish and having entered The Citadel with less than two units of the language.

Essentially a drill course in the reading, writing, and speaking of simple Spanish.

201, 202. *Business Spanish* Six Credit Hours

Primarily for students in Business Administration.

An intermediate course, to develop the student's understanding of oral and written Spanish; texts dealing with Spanish America; some work in business terminology and correspondence.

Prerequisite: Spanish 102 or two entrance units.

203, 204. *Intermediate Spanish* Six Credit Hours

Continuation of elementary work, with reading of nineteenth century or contemporary authors; classroom composition and conversation. Credit not given for both 201, 202 and 203, 204.

301, 302. *Spanish Literature of the Golden Age* Six Credit Hours

Literature of the late sixteenth and seventeenth centuries, the age producing the characters of Don Quixote and Don Juan; a study of the works of Cervantes, Lope, Tirso, Calderon, and others.

Prerequisite: Spanish 204 or 202, or four entrance units, or equivalent competence in the language.

303, 304. *Spanish-American Literature* Six Credit Hours

Leading works from Mexico and Central and South America studied, with both individual and class reading.

Prerequisite: Same as for Spanish 301, 302. Given in alternating years with that course.

All Modern Languages

420. *Senior Essay* Two Credit Hours

Required of all seniors as a prerequisite to graduation. See page 62.

Classical Languages

101, 102. <i>Elementary Greek</i>	Six Credit Hours
Fundamentals of the Greek language. Recommended for students preparing for the study of medicine or theology.	
201, 202. <i>Intermediate Greek</i>	Six Credit Hours
Selections from Xenophon or the New Testament.	
Prerequisite: Greek 101, 102.	
101, 102. <i>Elementary Latin</i>	Six Credit Hours
Latin grammar and translation. Course dependent upon the background of the students. Recommended for pre-law students.	
201, 202. <i>Intermediate Latin</i>	Six Credit Hours
Translation from Latin prose writers.	
Prerequisite: Latin 101, 102 or two entrance units.	

DEPARTMENT OF PHYSICS

It is the purpose of the Department of Physics to offer to all students at The Citadel a fundamental course in one of the basic physical sciences, to afford to pre-medical students an adequate preparation in physics for admission to the best medical schools, and to offer to students specializing in other departments such advanced courses in physics as are necessary to meet their needs. To students taking their major work in the Department, it offers a program of courses sufficient to enable them to enroll as graduate students in full standing at the leading universities, or to fill positions as assistant physicists in the government service and in industrial laboratories.

The rooms of the department are located in the east wing of Bond Hall. On the first floor are two large laboratories for advanced physics course, one of which is air-conditioned, a photometric laboratory, photographic dark room, and a machine shop for instrument repair and maintenance. Apparatus storerooms and a room containing D. C. generators and the main electric switchboard are also located on this floor. On the second floor are a large lecture room seating one hundred and twenty, four smaller lecture rooms, one classroom, and two laboratories for elementary physics. Two additional elementary laboratories are located on the third floor. At all lecture desks and laboratory tables, electric power, both A.C. and D.C., of the required voltage is available from direct current generators or the commercial A. C. power supply. Gas, water and compressed air outlets are also available in all lecture rooms and laboratories. Distribution panels, connected with

the main electric switchboard, are located in the advanced laboratories. The lecture rooms and laboratories are conveniently arranged and adequately equipped to carry out the departmental policy of student experimental work and extensive lecture demonstrations in all sections of general physics.

A library containing the books and reference materials pertaining to physics and electrical engineering is maintained in the department for the convenience of students in these fields.

An active chapter of Sigma Pi Sigma, Physics Honor Society, has been maintained at The Citadel since 1941.

The requirement of one year of physics in the sophomore class can be met by Physics 201, 202 in all courses of study. Physics 203, 204 does not satisfy the requirement in a science or engineering elective. The objectives, methods, and to some extent the content in these two courses are different. Accordingly, Physics 201 will be followed by Physics 202 even by those students who change to a different course of study during the first semester of the sophomore year. Physics 203 will be followed by Physics 204. The approval of the Department of Physics is required for any deviation from these procedures.

Students taking physics as their major work are required to take all of the courses offered by the department for physics majors. In addition they are required to take Mathematics 301, 302; German 201, 202. For valid reasons the study of German may be postponed to the junior or senior year. Physics majors are advised to choose their electives from the advanced courses offered in the Department of Chemistry and the Department of Mathematics.

The less mathematical portions of mechanics, heat, electricity, sound and light covered with no assumption of prior knowledge of physics; laboratory work of about twenty-eight individual quantitative experiments based on fundamental principles discussed in lectures; instruction in the use of the slide rule, required equipment. Lecture: three hours; laboratory: two hours.

Prerequisite: To be preceded or accompanied by Math. 112.

203, 204. *Introduction to College Physics* Eight Credit Hours
Required of all sophomores who do not take Physics 201, 202.

A course similar to Physics 201, 202, adapted to the needs of students who expect to take no additional courses in the physical sciences and including recent developments in physics bearing directly on everyday life; laboratory periods devoted to experiments conducted by the in-

structor, solution of problems, showing of technical films or individual experiments performed by the students. Lecture: three hours; laboratory: two hours.

Prerequisite: To be preceded or accompanied by Math. 112.

301, 302. Advanced General Physics Ten Credit Hours

Required of all Physics Juniors; open to others.

A continuation of Physics 201, 202 covering in a more advanced and mathematical manner portions of mechanics, heat, electricity and magnetism not included in the earlier course. Lecture: five hours.

Prerequisites: Physics 201, 202; Math. 201.

303, 304. Laboratory Physics Four Credit Hours

Required of all Physics Juniors; open to others.

A study in the laboratory of most of the topics considered in Physics 302, 302; about sixty more advanced experiments than those in Physics 201, 202 involving the use of most of the standard instruments of physical measurement. Laboratory: four hours.

Prerequisites: To be preceded or accompanied by Physics 301 or 302.

305, 306. Physics for Pre-Medical Students Six Credit Hours

Required of all Pre-Medical Juniors.

Designed to meet the requirement in laboratory physics for admission to the best medical schools; about thirty individual quantitative experiments dealing with mechanics, molecular physics, heat, electricity, sound, and light. Lecture: two hours; laboratory: two hours.

Prerequisites: Physics 201, 202.

307. Wave Motion, Sound, and Geometrical Optics Four Credit Hours

Required of all Physics Juniors; open to others.

The general equations of wave motion with application to sound and light; the velocity of sound waves, reflection, refraction and dispersion of light in theory and experiment; approximately five laboratory experiments in sound and ten in geometrical optics. Lecture: three hours; laboratory: two hours.

Prerequisites: Physics 201, 202; Math. 201, 202.

308. Light Four Credit Hours

Required of all Physics Juniors; open to others.

The phenomena of interference, diffraction, polarization, and double refraction studied both theoretically and experimentally; Maxwell's equations for an electromagnetic wave with applications to some light phenomena. Lecture: three hours; laboratory: two hours.

Prerequisite: Physics 307.

401. Modern Physics Three Credit Hours

Required of all Physics Seniors; open to others.

The background of modern atomic physics, charged atomic particles, photoelectricity, X-rays, the quantum theory of radiation, special theory of relativity, atomic spectra and atomic structure. Lecture: three hours. Prerequisites: Physics 302, 308.

402. *Nuclear Physics* Three Credit Hours

Required of all Physics Seniors; open others.

A continuation of Physics 401 to include natural radioactivity, isotopes, artificial radioactivity and nuclear disintegration, nuclear reactions, detection of charged particles and radiation, cosmic rays and fundamental particles. Lecture: three hours.

Prerequisite: Physics 401.

403, 404. *Advanced Laboratory Physics* Two Credit Hours

Required of all Physics Seniors.

A course to accompany Physics 401, 407 and 402. Experiments of a more advanced nature in mechanics and heat, and experiments in atomic and nuclear physics to include electron emission, determination of fundamental constants, conduction of electricity through gases, X-rays and radioactivity. Laboratory: two hours.

405. *Advanced Physics* Three Credit Hours

Senior Elective.

An introduction to modern physics and the principles of mechanics, heat, electricity and light essential to its understanding; lectures and demonstration experiments on many topics covered more completely in Physics 307, 308 and 401. Lecture: three hours.

Prerequisites: Physics 301, 302.

406. *Electronics* Five Credit Hours

Required of all Physics Seniors.

Characteristics of electron tubes and their use as rectifiers, detectors, amplifiers and oscillators. A course designed to introduce students to the use of electron tubes and circuits in the field of measurements. Lecture: three hours; laboratory: four hours.

Prerequisite: Physics 413.

407. *Mechanics* Two Credit Hours

Required of all Physics Seniors.

Selected topics in mechanics to extend the treatment given in Physics 301; kinematics, work and energy, gravitational theory, oscillations, dynamics of particles and rigid bodies. Lecture: two hours.

Prerequisite: Physics 301.

413. *Electricity and Magnetism* Five Credit Hours

Required of all Physics Seniors.

The electrostatic field and its effect on matter, the properties of mag-

netic fields and magnetic materials, electromagnetic effects, electrical transients, periodic currents. Lecture: three hours; laboratory: four hours.

Prerequisite: Physics 302; Math. 301.

420. *Senior Essay* Two Credit Hours
Required of all seniors as a prerequisite to graduation. See page 62.

DEPARTMENT OF POLITICAL SCIENCE

The curriculum of political science at The Citadel is planned to give the student a background in the political, social, and economic developments of the modern world. It seeks an understanding and interpretation of tendencies, a breadth of view, and a spirit of scientific inquiry; it undertakes to provide a broad, liberal education designed to prepare a student for his profession or business.

While this program of study is concentrated upon political authority or government, it is recognized that political science does not stand alone but as one of an integrated group of social sciences. Therefore, certain courses in history and economics are required in the curriculum, and courses in sociology, psychology, philosophy, and literature are recommended as electives.

A student who selects political science as his major course of study is required to take Political Science 201 (American National Government) and 202 (State and Local Government) in the sophomore year. For the requirements in the junior and senior years, see page 76. Two years of a modern language are required. There are fifteen hours of electives which may be chosen according to the individual's requirements and interests, subject to the approval of this department.

International Affairs Program

The Political Science Department has long been aware of the increased need for men trained in international affairs and encourages students to prepare for careers in the Foreign Service, State Department, and Intelligence activities. Although the State Department does not designate an arbitrary program of preparation, the curriculum of this department has been prepared in consultation with the State Department.

Students desiring to prepare themselves for careers in these fields should indicate such a desire at the beginning of the junior year. They

will follow a special program by selecting their minor electives from special courses in history, sociology, psychology, English, and modern languages.

201. *American National Government* Three Credit Hours

Required of all Political Science Sophomores. Open to others.

The origins and development of the American constitutional system; relations between national and state governments in the American federal system; the political process, with emphasis upon election procedures, public opinion, and pressure group and political party activity; the individual and his government; the institutional organization of the national government; the national government in action.

202. *State and Local Government* Three Credit Hours

Required of Political Science Sophomores. Open to others.

The historic evolution of state governmental and constitutional systems; the role of the states in the American constitutional system; the institutional organization of state governments; the relationship between states and their political subdivisions; the organization and activities of local governmental units.

Prerequisite: Polit. 201.

301, 302. *International Law and Organization* Six Credit Hours

Required of Political Science Juniors. Open to others receiving permission of the instructor.

A survey of international law as developed through treaties, customs, usages, and decisions of national and international tribunals; a study of the League of Nations, the United Nations, and the international machinery for the settlement of international problems and disputes.

303. *American Foreign Relations* Three Credit Hours

Required of Political Science Juniors. Open to others receiving permission of the instructor.

A study of the organization of the American government for the conduct of foreign relations; the institutions and elements in the making of foreign policy; emphasis on the important problems and developments of the post-war years.

304. *American Parties and Politics* Three Credit Hours

Required of Political Science Juniors. Open to others.

An analysis of the dynamics of American politics, with particular emphasis upon the factors entering into the formation of public opinion, the role of pressure groups, and the operations of the party system.

305, 306. *Public Administration* Six Credit Hours

Required of Political Science Juniors. Open to others.

A study of the characteristics of public administration at all levels; the principles and practices of organization; the role of leadership and its

processes; the management of personnel and finance; the effects of the regulatory process upon administration; the problems of securing administrative responsibility.

Prerequisites: Polit. 201, 202.

307, 308. *Economic Foundations of Modern Life* Six Credit Hours Required of Political Science Juniors. Open to others.

Basic economic concepts. National income, diminishing returns, population and progress, organization of business enterprise, social aspects of corporation finance and the securities market, monopoly and monopolistic prices, public utilities regulation, risk, insurance, speculation, money and banking, prices, labor problems and public policy, wages, interest, rent, profits, international trade and finance.

310. *Public Personnel Administration* Three Credit Hours Open to juniors and seniors.

A study of the structure of governmental personnel management; its processes of securing, training, rewarding, disciplining, and separating employees; analyses of selected cases and problems in human relations in management.

312. *Municipal Government* Three Credit Hours Open to juniors and seniors.

A study of the legal status of municipalities, their administrative organization; personnel and financial problems; planning and zoning; safety administration; regulatory and management problems.

401, 402. *Constitutional Law* Six Credit Hours Required of Political Science Seniors. Open to others receiving permission of the instructor.

A study of the underlying and basic principles of the Constitution as reflected in the leading decisions of the United States Supreme Court.

403. *Government Finance* Three Credit Hours Required of Political Science Seniors. Open to others receiving permission of the instructor.

An analysis of the scope and methods of governmental taxing, spending, and borrowing; current financial problems of all levels of government; implications of alternative fiscal problems.

Prerequisites: Polit. 307, 308.

405, 406. *International Politics* Six Credit Hours Required of Political Science Seniors. Open to others receiving permission of the instructor.

An analysis of the development and distribution of power among nations; the geographic, demographic, economic, political, psychological, and military bases of national power; emphasis on the problems and policies of the major powers.

407, 408. *Political Theory* Six Credit Hours
Required of Political Science Seniors. Open to liberal Arts Seniors. Major theoretical writing from Plato to Thomas Hill Green; emphasis on a comparison of basic ideas and on the relationship between theories and contemporary problems.

409, 410. *Far Eastern Affairs* Six Credit Hours
Open to juniors and seniors.
A survey of the Far East and Southeast Asia; a study of the power elements of these areas; emphasis on the role of Asia and its problems in American foreign policy.

411. *Comparative Government* Three Credit Hours
Open to juniors and seniors.
An analysis of the structure and operation of the basic political institutions of the major powers; emphasis on divergent approaches to their common problems.

412. *Administrative Law* Three Credit Hours
Open to seniors with adequate background in history, economics, and political science.
The origins and development of the administrative processes on national, state, and local levels; the scope and limits of administrative powers; the enforcement of administrative action; remedies against administrative action.

414. *Latin American Affairs* Three Credit Hours
Open to juniors and seniors.
A survey of the Latin American area; a study of the power elements and related problems; emphasis on the relationships and importance of the area to the United States.

416. *National Policy and Administration* Three Credit Hours
Open to juniors and seniors.
Analytical and critical survey of the process of formulating and administering basic domestic policy; the role and influence of special interest groups; the problems of the President and Congress in formulating general interest programs.

418. *Middle Eastern Affairs* Three Credit Hours
Open to juniors and seniors.
A survey of the Middle East; a study of the power elements and related problems; emphasis on the role of the area in American foreign policy.

420. *Senior Essay* Two Credit Hours
Required of all seniors as a prerequisite to graduation. See page 62.

The Commandant of Cadets is charged with the maintenance of discipline over all students attending The Citadel. He controls the Corps of Cadets in their daily routine of duties, grants leaves and privileges provided by regulations, and maintains conduct records of all cadets. The department exercises supervision over barracks, controls the cadet guard and the officer in charge, and keeps the President of the college informed of matters pertaining to the conduct and discipline of the Corps of Cadets and veteran students.

The Citadel is a military college, and it is therefore essential that a high standard of discipline be maintained. Through a system of merits and demerits, a record is kept of the conduct of each cadet. This record influences his military standing. Privileges of cadets who fail to respond to ordinary corrective measures are curtailed. Any cadet exceeding the allowed limit of demerits for the year will be dismissed.

By instruction and example cadets are taught to be neat in person and in uniform. Daily inspections of rooms insure cleanliness and good order. Through individual personal contacts and group meetings, cadets are encouraged to uphold the traditions of The Citadel and the standards of honor, integrity, and courtesy which are an outstanding mark of the cadet and gentleman.

DEPARTMENT OF CADET AFFAIRS

Mark Clark Hall

All cadet affairs, except the athletic programs, are now housed in Mark Clark Hall, The Citadel's new student union building. This handsome and spacious structure was dedicated on May 31, 1957, and was completely furnished and equipped for the opening of the 1957-1958 session. The Board of Visitors of The Citadel named the structure Mark Clark Hall to honor our distinguished president, General Mark Wayne Clark. General Clark's untiring and productive efforts in the interest of the personal welfare of the cadets made this action most appropriate. Mark Clark Hall was constructed and furnished at a cost exceeding \$1,000,000.00 from tuition fees paid by cadets; no State appropriation was required to defray this cost.

The facilities which are provided are listed as follows:

First Floor	Second Floor	Third Floor
Reception Room	Lounge & Club Room	3 Conference Rooms
Hostess Office	Kitchen	<i>Sphinx</i> Staff Office
Cadet Depository	Cadet Store	<i>Brigadier</i> Staff Office
Cadet Canteen	Alcove Lounge	<i>Shako</i> Staff Office
Barber Shop	Auditorium	<i>Guidon</i> Staff Office
Y.M.C.A. Office	Television Room	Honor Court
Post Office	Game Room	Projection Booth
Billiard Room	Administrative Offices	Dark Room
Bowling Alley	Rest Rooms	10 Guest Rooms
Cloak Room		Linen Closets & Storage
Rest Room		

Full use is made of all these facilities. Cadets, alumni, and friends of The Citadel are proud of the fine edifice which contributes so much to stimulate interest and participation in the extracurricular activities. Detailed information concerning the various activities will be found in the following paragraphs.

Publications

THE BRIGADIER is published semimonthly by a staff of students. It serves as the campus newspaper and is financed by an allotment from the student activities fee, augmented by the revenue from subscriptions and sale of advertising space.

THE SHAKO, the literary magazine, is published four times a year. It is supported by voluntary subscriptions, the income from advertisements, and an allotment from the student-activity fee.

THE SPHINX is published annually by a staff of students. This publication serves as a semiofficial record of the year. By means of copy and photographs, the faculty and staff, the student classes, the

military organization, the athletic activities, the social affairs, and other student programs are portrayed vividly to preserve a record of student life for posterity. THE SPHINX is financed by an allotment from the student-activity fee and the sale of advertising space.

THE GUIDON, the cadet handbook, is published annually by a staff of cadets. The handbook contains a complete description of the activities of the college, college history, customs, duties and responsibilities of cadets and deals with other phases of cadet life. It is particularly helpful to entering freshmen. The publication is financed by the allocation of a portion of the student-activity fee and the sale of advertising space to local business firms. It is distributed to all students at the beginning of the college year.

Social Events

All Citadel dances are under the sponsorship of the Standing Hop Committee, an organization elected by the cadets from the student body. The duties of this committee are to set dates for the dances, provide bands, and coordinate all plans for the hops held for the Corps.

The Citadel hops are the highlights of the social activities of the cadet. As dances are strictly for and by cadets, few invitations are issued to civilians. The formal hops held annually are the Thanksgiving Hop, the Christmas Hop, the Valentine's Hop, the Corps Day Hop, the Spring Hop, and the Commencement Hop. The Christmas Hop has as its feature the First class Ring Ceremony, sponsored by the First class Ring Committee. Although these dances are formal, by tradition corsages are not worn by the cadet's dates. In addition to the formal dances, several informal dances are held throughout the year. Often the cadet orchestra, "The Bulldogs," plays for these dances. Other than the allocation from the Cadet Activity Fee for Athletics, the next largest allotment of funds is made to finance these formal and informal hops and other social functions. Every cadet is privileged to attend the social activities held.

The Patio

Located directly behind the Armory, the Patio not only is a retreat for cadets and their dates at hops, but also has other possibilities. With its large outdoor fireplace and a radio-television-phonograph combination set, it lends itself to many cadet activities. Its proximity to the pool makes swimming parties enjoyable in the warm months of the year. Capacity is not a problem because it will accomodate approximately two hundred persons. The Patio may be used for company, squadron, organization, and club parties if the chairman of the Standing Hop Committee is notified two weeks in advance.

Hostess Bureau

The Citadel hostess, Mrs. A. E. Dufour, serves as social advisor for students. Her office is located in the reception room of Mark Clark Hall. Under her supervision dancing classes are conducted and informal tea dances are held in the auditorium on week day afternoons. At the time of formal hops, she arranges for overnight accommodations in private homes for the ladies from out-of-town and plans for refreshments and the care of personal effects at the hops. She keeps the reception room open and maintained in good taste for the use of students and their guests from 9:00 a.m. until retreat daily. The hostess serves the students constantly in the discussion and solution of their many personal problems.

Cadet Services

Operated for the convenience of cadets and under the supervision of the department, the cadet services include the canteen, the barber shop, the post office, the reception room, the recreation room, the billiard room, the dark room, the television room, the game room, and the auxiliary kitchen. There are also six bowling alleys equipped with automatic pinsetters. The new auditorium is used primarily for the showing of movies, although its facilities make it suitable for many kinds of large gatherings.

Literary and Discussion Groups

Five student societies offer opportunities for discussing subjects of cultural interest and for developing proficiency in public speaking: the Calliopean Literary Society, the International Relations Club, the English Club, the Round Table, and the Radio Club.

The Calliopean Literary Society sponsors forensic interest including radio speaking, intramural and intercollegiate debating, and oratory. Membership is open to all students.

The International Relations Club is devoted to the study of contemporary world economic and political problems. Membership is restricted to those students especially interested in government and politics.

The English Club is an organization of students interested in English. At meetings, professional writers are heard and problems of literary interest are discussed.

The Round Table is a discussion group with a limited membership. Elections are made from lists prepared by the faculty of those students with marked intellectual interests.

The Radio Club is composed of students interested in both the writing and the actual broadcasting or original scripts. At regular weekly meetings the scripts are tested before their presentation over a local station.

Musical Activities

The Student Orchestra, under the direction of Captain Leon Freda, furnishes the music for all informal dances.

The Glee Club, under the direction of Mr. Vernon W. Weston, serves as the choir at chapel services and gives programs in Charleston churches.

The College Band, under the direction of Captain Leon Freda, provides the music for parades, guard mount, and other official ceremonies.

The Music Club was formed to bring together in congenial association all students interested in good music. These students have for their use the records and phonographs given The Citadel by the Carnegie Foundation.

Professional Clubs and Societies

The following professional clubs and chapters of national professional societies are to be found at The Citadel: Knox Chemical Society; Pre-medical Club; Student Chapter, American Society of Civil Engineers; Student Chapter, American Institute of Electrical Engineers; Sigma Pi Sigma, national honor society in physics; Student Chapter, Society of American Military Engineers; Student Chapter, American Ordnance Association; Economic Honor Society; Beta Iota Chapter of Pi Sigma Alpha, national political science honor society; Phi Alpha Theta, national honor society in history; and Spanish-American Club.

Committees of the Corps of Cadets

The President's Advisory Committee was inaugurated by General Mark W. Clark for the purpose of keeping the President and the Corps of Cadets working in congenial relationship.

The Cadet Honor Committee is made up of first classmen and is the group upon whom rests the actual administration of the Honor System of the Corps of Cadets.

The Cadet Orphanage Fund Committee is directly in charge of all phases of its program. The objective is to give the children of the Charleston orphanages a better Christmas. The committee collects donations from cadets, finds out the needs of the children, makes the purchases, and wraps and tags the presents by name. On the last day before Christmas furlough the cadets form a motorcade to visit each of the orphanages to present the gifts in person. This program was organized in 1952 and has grown each year since. In 1957 more than \$6,000 was donated to the fund by the cadets and veteran students.

Other Organizations

There are several important cadet organizations that do not come under a specific classification. The following should be mentioned as

having distinctive functions in cadet life: the Summerall Guards (first classmen), the Bond Volunteers (second classmen), the Junior Sword Drill, Sons of the American Revolution, Alpha Phi Omega (scouting), the Yacht Club, and the regional cadet clubs.

Religious Organizations

A complete discussion of religious activities and organizations may be found on pages 34-35.

DEPARTMENT OF ATHLETICS

Since the fullest advantages of academic and military life can be derived only by men of sound physique, every student at The Citadel is encouraged to participate in sports as far as his duties will permit. In our ever increasing complex interdependent society the lessons of loyalty, co-operation, and self-defense learned in athletics are of importance. It is the policy of The Citadel to give every reasonable encouragement to the physical development of all students. Fortunately the climate of Charleston makes possible a year-round program of outdoor sports.

The members of the athletic staff are competent and experienced coaches. Each is a college graduate and of high moral character. A physician is in attendance at every scheduled athletic event and due precautions are taken to prevent injuries in training or in athletic contests.

The Citadel is a member of the National Collegiate Athletic Association and of the Southern Conference. Teams engage in intercollegiate competition in football, basketball, wrestling, swimming, tennis, golf, baseball, track and field, cross-country, and in rifle shooting.

Facilities for a well rounded development in athletics are provided at The Citadel. Johnson Hagood Memorial Stadium, where all home football games are played, seats over 23,000 spectators. The swimming pool at The Citadel has six lanes and is of regulation length for official intercollegiate swimming meets. The Citadel Armory, where all home basketball games are played, is large enough for three basketball games to be played at one time. All home baseball games are played at College Park field which was formerly used by the Charleston Rebels of the South Atlantic League. The field is enclosed by a concrete block fence and has a covered and screened grandstand which will seat over 3,000 spectators. In the gym, facilities are provided for students to participate in boxing, weight lifting, and gymnastics. These facilities are for the use of all students.

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CITADEL
The MILITARY COLLEGE
of SOUTH CAROLINA

